

HTR2018 conference schedule

	8 October (Monday)	9 October (Tuesday)	10 October (Wednesday)								
9.00 – 11.00	Plenary session Governmental perspective room: IRYS+RÓŽA	<table border="1"> <tr> <td>T.5 room: LILIA</td> <td>T.8 room: IRYS</td> <td>T.3 room: ROZA</td> <td>T.6 room: PROMENADA</td> </tr> </table>	T.5 room: LILIA	T.8 room: IRYS	T.3 room: ROZA	T.6 room: PROMENADA	<table border="1"> <tr> <td>T.7 room: LILIA</td> <td>T.8 room: IRYS</td> <td>T.3 room: ROZA</td> <td>T.4 room: PROMENADA</td> </tr> </table>	T.7 room: LILIA	T.8 room: IRYS	T.3 room: ROZA	T.4 room: PROMENADA
T.5 room: LILIA	T.8 room: IRYS	T.3 room: ROZA	T.6 room: PROMENADA								
T.7 room: LILIA	T.8 room: IRYS	T.3 room: ROZA	T.4 room: PROMENADA								
11.00 – 11.30	Coffee break	Coffee break	Coffee break								
11.30 – 13.00	Plenary session Achievements and plans room: IRYS+RÓŽA	<table border="1"> <tr> <td>T.7 room: LILIA</td> <td>T.8 room: IRYS</td> <td>T.3 room: ROZA</td> <td>T.6 room: PROMENADA</td> </tr> </table>	T.7 room: LILIA	T.8 room: IRYS	T.3 room: ROZA	T.6 room: PROMENADA	<table border="1"> <tr> <td>T.7 room: LILIA</td> <td>T.8 room: IRYS</td> <td>T.3 room: ROZA</td> <td>T.4 room: PROMENADA</td> </tr> </table>	T.7 room: LILIA	T.8 room: IRYS	T.3 room: ROZA	T.4 room: PROMENADA
T.7 room: LILIA	T.8 room: IRYS	T.3 room: ROZA	T.6 room: PROMENADA								
T.7 room: LILIA	T.8 room: IRYS	T.3 room: ROZA	T.4 room: PROMENADA								
13.00 – 14.00	Lunch	Lunch	Lunch								
14.00 – 16.00	<table border="1"> <tr> <td>T.5 room: LILIA</td> <td>T.1 room: IRIS</td> <td>T.2 room: ROZA</td> <td>T.6 room: PROMENADA</td> </tr> </table>	T.5 room: LILIA	T.1 room: IRIS	T.2 room: ROZA	T.6 room: PROMENADA	<table border="1"> <tr> <td>T.7 room: LILIA</td> <td>T.8 room: IRYS</td> <td>T.3 room: ROZA</td> <td>T.4 room: PROMENADA</td> </tr> </table>	T.7 room: LILIA	T.8 room: IRYS	T.3 room: ROZA	T.4 room: PROMENADA	Plenary session Towards the future room: IRYS+RÓŽA
T.5 room: LILIA	T.1 room: IRIS	T.2 room: ROZA	T.6 room: PROMENADA								
T.7 room: LILIA	T.8 room: IRYS	T.3 room: ROZA	T.4 room: PROMENADA								
16.00 - 16.30	Coffee break	Coffee break	Coffee break								
16.30 – 18.00	<table border="1"> <tr> <td>T.5 room: LILIA</td> <td>T.1 room: IRYS</td> <td>T.3 room: ROZA</td> <td>T.6 room: PROMENADA</td> </tr> </table>	T.5 room: LILIA	T.1 room: IRYS	T.3 room: ROZA	T.6 room: PROMENADA	<table border="1"> <tr> <td>T.7 room: LILIA</td> <td>-----</td> <td>T.3 room: ROZA</td> <td>T.4 room: PROMENADA</td> </tr> </table>	T.7 room: LILIA	-----	T.3 room: ROZA	T.4 room: PROMENADA	Closing plenary panel room: IRYS+RÓŽA
T.5 room: LILIA	T.1 room: IRYS	T.3 room: ROZA	T.6 room: PROMENADA								
T.7 room: LILIA	-----	T.3 room: ROZA	T.4 room: PROMENADA								
20:30 – 22:00		CONFERENCE DINNER room: LILIA+IRYS+RÓŽA									

Plenary sessions (room: IRYS+RÓŻA)

Monday, 8 October

9:00 – 11:00 Governmental perspective

Chair: Grzegorz WROCHNA, NCBJ

- **Krzysztof TCHÓRZEWSKI**, Minister of Energy, Poland;
Józef SOBOLEWSKI, Director of Nuclear Energy Department, Ministry of Energy, Poland
- **William MAGWOOD**, OECD / NEA Director General
- **Michael GOFF**, White House Senior Policy Advisor
- **Rob ARNOLD**, Department for Business, Energy and Industrial Strategy, UK
- **Naoyuki UEDA**, Deputy Director, Atomic Energy Division, Research and Development Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan;
Kazuhiko KUNITOMI, Deputy Director General for Sector of Fast Reactor and Advanced Reactor Research and Development, Japan Atomic Energy Agency (JAEA), Japan

11:30 – 13:00 Achievements and plans

Chair: Eileen LANGEGGER, European Nuclear Society

- **Michał KURTYKA**, Secretary of State, Ministry of Environment, Poland
- **DONG Yujie**, Deputy Director of Institute of Nuclear and New Energy Technology, Tsinghua University, China
- **Kam GHAFARIAN**, CEO of X-energy, USA

Wednesday, 10 October

14:00 – 16:00 Towards the future

Chair: Jerzy CETNAR, AGH Technical University

- **Metin YETISIR**, Head of Advanced Reactor Technologies Section, Canadian National Laboratory
- **Djarot WISNUBROTO**, Chair of the National Nuclear Energy Agency of Indonesia (BATAN)
- **Andrzej GŁOWACKI**, Deputy Director of Nuclear Safety Department of National Atomic Energy Agency (PAA), Poland
- **Donald HOFFMAN**, CEO of Excel Services Corporation, USA
- **Eileen LANGEGGER**, European Nuclear Society
- discussion

16:30 – 18:00 Closing plenary panel

Chair: Michael Fütterer, JRC

- **Track Leaders** – track highlights
- **Błażej CHMIELARZ**, USNC – young generation impressions from the conference

Parallel sessions

Monday, 8 October, 14:00-16:00

Track 1: National Research Programs and Industrial Projects

- room: **IRYS**

Chair: Geni Rina SUNARYO, Director, Centre for Nuclear Reactor Safety and Technology, National Nuclear Energy Agency of Indonesia (BATAN), Indonesia, Donald HOFFMAN, CEO, Excel Services Corporation, USA

24' **Frederik REITSMA (IAEA)** *IAEA Technology Development Support to Member States for the Near-Term Deployment of High Temperature Reactors*

24' **Grzegorz WROCHNA (NCBJ)** *Actions towards HTGR deployment in Poland*

24' **Hans GOUGAR (Idaho National Laboratory)** *Status Report on HTR Research, Development, and Deployment in the USA*

24' **Yuji FUKAYA (JAEA)** *Study on Pu-burner High Temperature Gas-cooled Reactor in Japan - 6. Introduction scenario*

24' **Dominique HITTNER (LGI)** *The GEMINI+ project to initiate the demonstration of industrial nuclear cogeneration in Europe*

Track 2: Industrial Applications and Markets - room: **RÓZA**

Chair: Michael A. Fütterer, Joint Research Centre

24' **Syaiful Bakhri, (Center for Nuclear Reactor Technology and Safety, National Nuclear Energy Agency, Indonesia)**, *Design Development of Test Facilities for Reaktor Daya Eksperimental (RDE)*

24' **Jin IWATSUKI (JAEA)** *Conceptual Design of the Steam Reforming System for Hydrogen Production connected to HTTR*

24' **Hiroaki TAKEGAMI (JAEA)** *Current R&D status of thermochemical water splitting hydrogen production iodine- sulfur process in Japan Atomic Energy Agency (I) - Hydrogen production test and component development*

24' **Yu KAMIJI (JAEA)** *Current R&D status of thermochemical water splitting hydrogen production iodine-sulfur process in Japan Atomic Energy Agency (II) - Reliability improvements of corrosion-resistant equipment*

24' **Michael McKellar (University of Idaho)** *Optimal Performance of Power Conversion Units and their Integration with Nuclear Reactors*

Track 5: Reactor Physics Analysis - room: **LILIA**

Chair: Farzad Rahnema, Georgia Institute of Technology

30' **Chen Hao (Harbin Engineering University)**, *Mechanism Analysis of the Effect of Random Packing of Fuel Particles on the Contributions of Nuclear Data Uncertainties to the Eigenvalue results in the Pebble Bed HTR*

30' **Tae Young Han (Korea Atomic Energy Research Institute)** *Verification of Pin-based Pointwise Energy Slowing-down Method on VHTR fuel problems*

30' **Elena Lagzdina (Center for Physical Sciences and Technology)** *Modelling of graphite properties for GT-MHR loaded with Pu fuel*

30' **Gerhard Strydom (INL)** *IAEA CRP on HTGR UAM: Propagation of Phase I cross section uncertainties to Phase II neutronics steady state using SCALE/SAMPLER and PHISICS/RELAP5-3D*

Track 6: Computer Codes and Analysis - room: **PROMENADA**

Chair: Martin Van Staden, X-Energy, LLC

20' **Jarmo Kalilainen (PSI)** *Loss of forced cooling accident analysis of HTR-PM using the MELCOR 2*

20' **Andrea Alfonsi (IDAHO NATIONAL LABORATORY)** *Decay Heat Surrogate Modeling for High Temperature Reactors*

20' **Charl Du Toit (North-West University)** *Effect of reactor vessel cooling insulation and reflector heat pipes on the temperatures of a pebble-bed reactor using a system CFD approach*

20' **Peter Niemand (North-West University)** *Code-to-code comparison of natural convective flow in an experimental facility*

20' **Paolo Balestra (NCSU)** *Modular High Temperature Gas Reactor Core Modeling with RELAP5-3D/PHISICS - Optimization Schemes for Load Following*

20' **Paul Humrickhouse (Idaho National Laboratory)**, *RELAP5 Modeling of the HTTR-GT/H₂ Secondary System and Turbomachinery*

Monday, 8 October, 16:30-18:00

<p>Track 1: National Research Programs and Industrial Projects - room: IRYS</p> <p>Chair: <u>Frederik Reitsma</u>, Team Leader: SMR Technology Development; International Atomic Energy Agency, <u>Mr Yugie Dong</u>, Deputy Director INET; Tsinghua University, China</p> <p>30' Finis Southworth: <i>NGNP: A Public-Private Partnership and Lessons Learned</i></p> <p>30' Michael A. FÜTTERER (European Commission - JRC) <i>Recent Advances in the GIF Very High Temperature Reactor System</i></p> <p>30' Jan Berka (Centrum vyzkumu Rez s.r.o.) <i>Results of Czech VHTR and GFR research program</i></p>	<p>Track 5: Reactor Physics Analysis - room: LILIA</p> <p>Chair: <u>Gerhard Strydom</u>, INL</p> <p>30' Farzad Rahnema (Georgia Institute of Technology) <i>Continuous-Energy COMET Solution of the VHTR Core</i></p> <p>30' Ding She (Tsinghua University) <i>Progress on the PANGU code for pebble bed HTGR neutronic analysis</i></p> <p>30' Hans Gougar (Idaho National Laboratory) <i>A Computational Scheme for PBR Core Analysis using Classical Homogenization Method Codes</i></p>
<p>Track 3: Fuel and Waste - TRISO Particle Fabrication room: RÓŽA Chair: <u>Bing Liu</u>, INET Tsinghua University</p> <p>22' Grant Helmreich (ORNL, USA) <i>Enhanced method for analysis of individual UCO kernel phase fractions</i></p> <p>22' Joshua Kane (Idaho National Laboratory) <i>3-D Characterization of LEU Fuel Kernels within Advanced Gas Reactor Compacts via X-ray Tomography</i></p> <p>22' Shohei Ueta (JAPAN ATOMIC ENERGY AGENCY) <i>Study on Pu-burner High Temperature Gas-cooled Reactor in Japan - Test and characterization for ZrC coating</i></p> <p>22' Masaki Honda (Nuclear Fuel Industries, LTD.) <i>Study on Pu-burner High Temperature Gas-cooled Reactor in Japan - 4. 3S-TRISO fuel fabrication</i></p>	<p>Track 6: Computer Codes and Analysis room: PROMENADA Chair: <u>Martin Van Staden</u>, X-Energy, LLC</p> <p>20' Hans Gougar (Idaho National Laboratory) <i>Identification and Characterization of Thermal Fluid Phenomena Associated with Selected Operating/Accident Scenarios in Modular High Temperature Gas-cooled Reactors</i></p> <p>20' Wei Peng (Tsinghua University) <i>Numerical simulation for air-cooled oil cooler of helium circulator in IHX facility test</i></p> <p>20' SHOJI TAKADA (Department of HTTR) <i>Oarai Research and Development Center, Japan Atomic Energy Agency (JAEA)) Numerical Evaluation on Fluctuation Absorption Characteristics Based on Nuclear Heat Supply Fluctuation Test Using HTTR</i></p> <p>20' Bowen Li (Tsinghua University) <i>Least Square Support Vector Machine Based Anomaly Diagnose Method for Nuclear Steam Supply Systems</i></p>

Tuesday, 9 October, 9:00-11:00

Track 8: Safety and Licensing

room: **IRYS**

Chair: Fu LI, INET Tsinghua University

30' **Kazuyuki Demachi (University of Tokyo)** *Study on Pu-burner High Temperature Gas-cooled Reactor in Japan - 7. Security evaluation*

30' **Hans-Josef Allelein (Institute of Reactor Safety and Reactor Technology (LRST), RWTH Aachen University; Institute of Energy and Climate Research (IEK-6), Forschungszentrum Jülich GmbH)** *Transport, Deposition and Resuspension of Graphite Dust in Helium Atmosphere at High Temperatures – Experiments and Simulation*

30' **Tetsuaki Takeda (University of Yamanashi)** *Study on air ingress processes during a depressurization accident of VHTR*

30' **Fu LI (Tsinghua University)** *One implementation of vented low pressure containment for HTR*

Track 5: Reactor Physics Analysis

room: **LILIA**

Chair: Gerhard Strydom, INL

30' **Seungsu Yuk (KAERI)** *Development of the CAPP Code for Transient Analysis of a Block-Type VHTR Core*

30' **Hans Gougar (Idaho National Laboratory)** *Suitability of Energy Group Structures Commonly Used in Pebble Bed Reactor Core Diffusion Analysis as Indicated by Agreement with Transport Theory for Selected Spectral Indices*

30' **Hans Gougar (Idaho National Laboratory)** *Spectral Zones Determination in Pebble Bed Reactors*

30' **Václav Šísl (Czech Technical University in Prague)** *Mixed LEU-Th Initial Core and Running-In Phase for HTR-PM Reactor #133*

Track 3: Fuel and Waste - Fuel Element Fabrication

room: **RÓZA**

Chair: John Hunn, Oak Ridge National Laboratory

24' **Frederik Reitsma (IAEA)** *Randomly Uniform Particle Distributions In A Sphere*

24' **Grant Helmreich (ORNL)** *New method for analysis of x-ray computed tomography scans of TRISO fuel forms*

24' **Xiangang WANG (Tsinghua University)** *Statistical Evaluation of TRISO Distribution of HTGR Fuel*

24' **Xiangwen Zhou (Tsinghua University)** *Effects of purification on the properties and microstructure of natural flake and artificial graphite powders*

24' **Pete Pappano (X-Energy, LLC)** *Update on X-energy (USA) UCO TRISO-particle Based Fuel Element Pebble Fabrication Efforts*

Track 6: Computer Codes and Analysis room: **PROMENADA**

Chair: Jim Kuijper (NUCLIC)

20' **Izabela Gutowska (Oregon state University)** *Modeling of HTTF Inlet Plenum Flow Distribution During Normal Operation*

20' **Martin Van Staden (X-Energy, LLC)** *Explicit Modelling of Randomly Packed Pebble Bed Using RANS CFD Modelling*

20' **Sung Nam Lee (KAERI)** *Numerical Analysis on the Scaled Air Cooled RCCS Test Facility*

20' **Tianjin Li (Tsinghua University)** *CFD-DEM simulation of particle vertical conveying in small absorber sphere system*

20' **Boyan Neykov (X-Energy, LLC)** *CFD V&V of the porous media pebble bed conjugate heat transfer model*

20' **Muhammad Subekti (Center for Nuclear Reactor Technology and Safety, BATAN)** *Benchmarking The CFD Code for RDE's Core Calculation*

Tuesday, 9 October, 11:30 – 13:00

Track 8: Safety and Licensing

room: **IRYS**

Chair: Farshid Shahrokh, Framatome Inc.

22' **Chris Molseed (Framatome Inc.)** *Reactor Building Response to Depressurization Events for Framatome Modular HTGR Concept*

22' **Yanhua Zheng (Tsinghua University)** *Discuss on the accident behavior and accident management of HTGR*

22' **Martin Van Staden (X-energy, LLC)** *Preliminary Safety Risk Evaluation for the Xe-100*

22' **Martin Van Staden (X-Energy, LLC)** *Exploring Passive Safety Features During Design and Regulatory Interaction*

Track 7: Development, Design and Engineering

room: **LILIA**

Chair: Lewis Lommers, Framatome Inc., Xing L. Yan, JAEA

20' **Hai Quan Ho (JAEA)** *Feasibility study of new applications at the high-temperature gas-cooled reactor*

20' **Khairul Handono (Center for Nuclear Facilities Engineering)** *Electrical and Instrumentation Design of Cavity Cooling Test Loop of Reaktor Daya Eksperimental (RDE)*

20' **Eben Mulder (X Energy, LLC)** *NEUTRONICS CHARACTERISTICS OF A 165 MWTH XE-100 REACTOR*

20' **Xuying QIN / Fubing Chen (Institute of Nuclear and New Energy Technology, Tsinghua University, Collaborative Innovation Center of Advanced Nuclear Energy Technology, Key Laboratory of Advanced Reactor Engineering and Safety, Ministry of Education)** *Applicability of China's Current Techno-Economic Standards on Economic Evaluation of Modular High Temperature Gas-cooled Reactors*

Track 3: Fuel and Waste - Coating Process Simulation

room: **RÓZA**

Chair: Tyler Gerczak, Oak Ridge National Laboratory

25' **Malin LIU (Tsinghua University)** *Scale-up study of FB-CVD process for TRISO particle fabrication based on numerical simulation*

25' **Meng CHEN/Malin LIU (Tsinghua University)** *Numerical simulation study of particle coating process by FB-CVD method*

25' **Zhao Chen (Tsinghua University)** *Numerical simulation of nanoparticle formation in FB-CVD process using a modified DEM model*

Track 6: Computer Codes and Analysis

room: **PROMENADA**

Chair: Jim Kuijper (NUCLIC)

20' **Yiyang Zhang (Tsinghua University)** *A Finite-Element Method (FEM) Study on the Deposition of Non-spherical Graphite Particles in High Temperature Gas-cooled Reactor (HGTR)*

20' **Xiaoxin Wang (Tsinghua University)** *Seismic Soil-Structure Interaction Analysis on HTR-10 at Various Sites*

20' **Ding She (Tsinghua University)** *Status of development of an integrated source term analysis code package for HTGR*

20' **Arya Adhyaksa Waskita (BATAN)** *Study on Effect of Latin Hypercube Sampling Method in TRISO Fuel Performance Analysis*

Tuesday, 9 October, 14:00 – 16:00

Track 8: Safety and Licensing

room: **IRYS**

Chair: [Fu LI](#), INET Tsinghua University

30' **Liguo Zhang (Tsinghua University)** *Technical Framework for Nuclear Material Accounting of Pebble Bed HTR*

30' **Andreas Andris (Technische Universität Dresden) Felix Fischer** *The behaviour and the influence of graphitic particles under hightemperature gas-cooled reactors conditions*

30' **Masaaki Nakano (Fuji Electric)** *Study on Pu-burner High Temperature Gas-cooled Reactor in Japan - 3. Reactor Safety Analyses and Maximum Achievable Reactor power*

30' **Hai Quan Ho (Japan Atomic Energy Agency)** *Study on source of radioactive material in primary coolant of HTTR*

Track 7: Development, Design and Engineering

room: **LILIA**

Chair: [H.-J. Allelein](#), FZJ, [Lewis Lommers](#), Framatome Inc.

20' **Zhuo Ren (Tsinghua University)** *Numerical Studies on Local Heat Transfer Characteristics of Printed Circuit Heat Exchanger for Supercritical CO2 Power Cycle*

20' **Yuji Fukaya (JAEA)** *Conceptual Design Study of a High Performance Commercial HTGR*

20' **Lewis Lommers (Framatome Inc.)** *Main Features of the Reactor Cavity Cooling System for the Framatome SC-HTGR*

20' **Wayne Boyes (North West University)** *A neutronic study to reduce the costs of pebble bed reactors by varying fuel compositions*

Track 3: Fuel and Waste - Mechanisms of Fission Product Release

room: **RÓZA**

Chair: [Paul Demkowicz](#), Idaho National Laboratory

24' **Isabella van Rooyen (Idaho National Laboratory)** *Microstructure and Fission Product Distribution Examination in the UCO kernel of TRISO Fuel Particles*

24' **Tyler Gerczak (ORNL)** *Analysis of fission product distribution and composition in the TRISO layers of AGR-2 fuel*

24' **Isabella van Rooyen (Idaho National Laboratory)** *Effect of Neutron Irradiation Damage on Fission Product Transport in the SiC Layer of TRISO Fuel Particles*

24' **Thomas Lillo (Idaho National Laboratory)** *Grain Boundary Characteristics of SiC in Irradiated, AGR-2 TRISO Particles*

24' **Tyler Gerczak (ORNL)** *Development of Planar PyC/SiC Diffusion Couples to Investigate Irradiation Effects and Microstructural Variation on Fission Product Diffusion*

Track 4: Materials, Components and Manufacturing - Graphite I

room: **PROMENADA**

Chair: [Manuel Pouchon](#), PSI, [William Windes](#) (INL)

25' **William Windes (Idaho National Laboratory)** *The USA's advanced graphite creep (AGC) irradiation experiment*

25' **DONGQING TIAN, Libin SUN (Tsinghua University)** *Study and Application on the Installation of Graphite Internals for High Temperature Gas-Cooled Reactors*

20' **William Windes (Idaho National Laboratory)** *The Advanced Reactor Technologies (ART) Graphite R&D Program*

20' **Joshua Kane (Idaho National Laboratory)** *Modelling Nuclear Graphite Oxidation Intrinsically*

20' **Huaqiang Yin (Tsinghua University)** *Effect of Temperature on Size Distribution of Carbonaceous Particles Formed by CVD on Inconel 617 Alloy*

Tuesday, 9 October, 16:30 – 18:00

	<p>Track 7: Development, Design and Engineering room: LILIA Chair: <u>Lewis Lommers</u>, Framatome <u>Inc.</u>, <u>H.-J. Allelein</u>, FZJ,</p> <p>20' Farshid Shahrokhi (Framatome Inc.) <i>The Framatome SC- HTGR Heat Transport System</i> 20' Shijiao Zhao (Tsinghua University) <i>Preparation of Tetragonal Zirconia Microspheres as Surrogate Precursor for Uranium Nitride Microspheres</i> 20' Hirofumi OHASHI (JAEA) <i>Conceptual Plant System Design Study of an Experimental HTGR upgraded from HTTR</i> 20' Werner von Lensa <i>The Status Quo on HTGR Decommissioning</i></p>
<p>Track 3: Fuel and Waste - Evaluating Fission Product Release room: RÓZA Chair: <u>Daniel Freis</u>, Joint Research Centre</p> <p>24' John Stempien (Idaho National Laboratory) <i>Preliminary results of post-irradiation examination of the AGR-3/4 irradiation to assess fission product mobility in graphite and graphitic matrix material</i> 24' Hongsheng Zhao (Tsinghua University) <i>The oxidation behavior and mechanism of the micro four-layer SiC coated matrix graphite in HTR</i> 24' Paul Humrickhouse (Idaho National Laboratory) <i>Preliminary Estimation of Fission Product Diffusion Coefficients from AGR-3/4 Data</i></p>	<p>Track 4: Materials, Components and Manufacturing - Graphite II room: PROMENADA Chair: <u>Manuel Pouchon</u>, PSI, <u>William Windes</u> (INL)</p> <p>25' Taiju Shibata (JAEA) <i>Post Irradiation Experiment about SiC-coated Oxidation-resistant Graphite for High Temperature Gas-cooled Reactor</i> 20' Tjark van Staveren (NRG) <i>Design, construction and operation of a graphite irradiation creep facility</i> 20' W. David Swank (Idaho National Laboratory) <i>High Temperature Annealing of Irradiated Nuclear Grade Graphite</i></p>

Wednesday, 10 October, 9:00 – 11:00

Track 8: Safety and Licensing

room: IRYS

Chair: [Farshid Shahrokh](#), Framatome Inc.

24' **Haitao WANG (Tsinghua University)**: *Current Status of the Development of Safety Requirements and Safety Guides for modular HTGRs in China*

24' **SungDeok Hong (KAERI)**: *Experimental Apparatus to Study Plate-out Characteristic at the Flow Channel of VHTR Heat Exchanger*

24' **RONGHONG QU (Tsinghua University)**, *Introduction to human factor engineering V&V Activities for advanced main control room in HTR-PM*

24' **Hiroyuki SATO (Japan Atomic Energy Agency)**: *Research and Development Plan for Licensing of HTGR Cogeneration Systems*

24' **Karol Kowal (NCBJ)**: *Application of Probabilistic Safety Assessment for nuclear-chemical installations with High Temperature Reactors: Challenges and Insights*

Track 3: Fuel and Waste - Irradiation Performance and PIE

room: RÓŽA

Chair: [Hongsheng Zhao](#), Tsinghua University

24' **Malin Liu (Tsinghua University)**: *Burnup measurement error analysis of HTR fuel using ab-initio Monte-Carlo simulation*

24' **Dong Liu (University of Oxford)**: *The Role of the Built-in Residual Stress and Interfacial Fracture Toughness on the Irradiation Behavior of Fuel Particles at 1000°C*

24' **Rong Li (Tsinghua University)**: *The effects of manufacturing uncertainties on the stresses in the TRISO-coated fuel particle*

24' **Dawn Scates (Idaho National Laboratory)**: *Fission Gas Monitoring for the AGR-5/6/7 Experiment*

24' **Asset Shaimerdenov (The Institute of Nuclear Physics, Kazakhstan)**: *Investigation of irradiated properties of extended burnup TRISO fuel*

Track 7: Development, Design and Engineering

room: LILIA

Chair: [Lewis LOMMERS](#), Framatome Inc., [H.-J. Allelein](#), FZJ

20' **KOJI OKAMOTO (The University of Tokyo)**: *Study on Pu-burner High Temperature Gas-cooled Reactor in Japan(1) Concept*

20' **Minoru Goto (JAEA)**: *Study on Pu-burner High Temperature Gas-cooled Reactor in Japan – Design Study of Fuel and Reactor Core –*

20' **Jinhua WANG (Tsinghua University)**: *Experimental study on the transport performance of damaged fuel element in HTR-PM*

20' **Musen Lin (Tsinghua University)**: *Analysis of the Interactions between Spent fuel Pebble Bed and Storage Canister under Impact Loading*

Track 4: Materials, Components and Manufacturing - Metals

room: PROMENADA

Chair: [Jana Kalivodova](#), [CV Řež](#), [I. Sah](#), KAERI

25' **Ondrej Muransky (Australian Science and Technology Organization (ANSTO), New Illawarra Road, Lucas Heights, NSW, Australia)**: *Predicting the Creep Rupture Behaviour of Alloy 617 using Advanced Damage Models*

20' **Woo-Gon Kim (KAERI)**: *Tensile and Creep Rupture Behaviors on Thermally-Aged Alloy 617 for 1-year at 900oC*

25' **Injin Sah (KAERI)**: *High-Temperature Mechanical Behaviors of Diffusion-Welded Alloy 617*

20' **Jianguang Shuai (Tsinghua University)**: **Jiaqing Zhao (Tsinghua University)**: *Characterization of Crack Propagation of Incoloy 800H Outlet Connection Tube Combining DIC and XFEM*

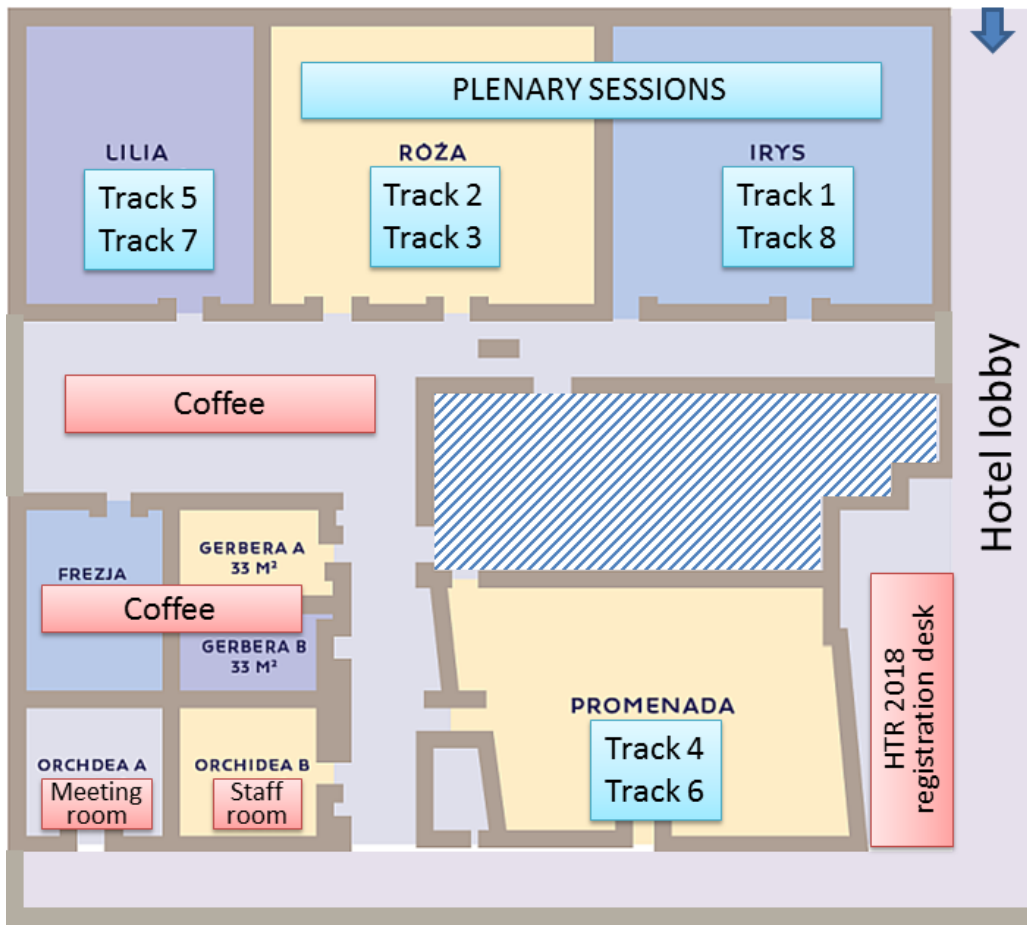
20' **Yunpeng Liu (Tsinghua University)**: *Irradiation hardening effect of A508-3 steels studied by crystal plasticity model*

Wednesday, 10 October, 11:30 - 13:00

<p>Track 8: Safety and Licensing room: IRYS Chair: <u>Farshid Shahrokh</u>, Framatome Inc.</p> <p>30' Yvotte Brits (X-Energy) <i>The Advantages of Developing a Hardware Based Reactor Protection System for High Temperature Gas Cooled Reactors</i> 30' Daddy Setyawan (BAPETEN, Nuclear Energy Regulatory Agency for Indonesia) <i>ATHLET Modelling of the HTR-10 Full Power Initial Core and ATHLET Improvement Perspectives for the Safety Assessment of Pebble Bed Reactors</i> 30' Feng Xie (Tsinghua University) <i>Study on the recognition method of the temperature measurement pebble in the transition core of HTR-10</i></p>	<p>Track 7: Development, Design and Engineering room: LILIA Chair: <u>Lewis LOMMERS</u>, Framatome Inc., <u>Xing L. Yan</u>, JAEA</p> <p>20' Xiaowei Li (Tsinghua University) <i>Influences of Fabrication Tolerance on Thermal Hydraulic Performance of HTGR Helical Tube Once Through Steam Generator</i> 20' Minoru Goto (JAEA) <i>Conceptual study of an experimental HTGR upgraded from HTTR</i> 20' Chan Soo Kim (KAERI) <i>VHTR Thermo-Fluid Tests in KAERI</i> 20' Topan Setiadipura (BATAN) <i>Design Development of Reaktor Daya Eksperimental (RDE) a high temperature reactor pilot plant for nuclear cogeneration</i></p>
<p>Track 3: Fuel and Waste - Safety testing and PIE room: RÓZA Chair: <u>Steven Kno</u>, NRG</p> <p>24' John Hunn (ORNL) <i>Post-irradiation examination and safety testing of US AGR-2 irradiation test compacts</i> 24' John Stempien (Idaho National Laboratory) <i>Preliminary Preliminary results from the first round of post-irradiation heating tests of fuel compacts from the US AGR-3/4 irradiation</i> 24' Daniel Freis (European Commission - JRC)/Bing LIU (Tsinghua University) <i>Burn up determination and Accident Testing of HTR PM Fuel Elements Irradiated in the HFR Petten</i></p>	<p>Track 4: Materials, Components and Manufacturing - Compounds room: PROMENADA Chair: <u>Jana Kalivodova Řež</u>, <u>Manuel Pouchon</u>, PSI</p> <p>22' Xiangang WANG (Tsinghua University) <i>Reachability Study of Inspection Probes in Helical Tubes</i> 22' Qinzhaoh Zhang (Tsinghua University) <i>Study on the shaft seal of circulator in HTR-PM</i> 22' Yinan GENG (Tsinghua University) <i>Application Of Similarity Law In Electrical Device Design In Helium For High Temperature Gas-Cooled Reactor</i> 22' Hui Yang (Sinosteel Advanced Materials (Zhejiang) Co., Ltd), <i>The Development of Sinosteel Nuclear Graphite for HTR</i></p>

HTR2018 side events

	Friday 5.10	Saturday 6.10	Sun 7.10	Mon 8.10	Tue 9.10	Wed 10.10	Thursday 11.10	Friday 12.10
room	GERBERA	GERBERA					IRYS	GERBERA
8:30 – 10:30	GIF VHTR CMVB Project Management Board	GIF VHTR CMVB Project Management Board		HTR 2018			GEMINI+ Intercontinental Workshop / Scientific Advisory Group meeting	GIF VHTR System Steering Committee
10:30 – 11:00	Coffee break	Coffee break					Coffee break	Coffee break
11:00 – 12:30	GIF VHTR CMVB Project Management Board	GIF VHTR CMVB Project Management Board					HTR2018 Organizing Committee meeting	GIF VHTR System Steering Committee
12:30 – 13:30	Lunch	Lunch					Lunch	Lunch
13:30 – 15:00	GIF VHTR CMVB Project Management Board	GIF VHTR CMVB Project Management Board					GEMINI+ Coordination Team Meeting / Scientific Advisory Group meeting	GIF VHTR System Steering Committee
15:00 – 15:30	Coffee break	Coffee break					Coffee break	Coffee break
15:30 – 17:00	GIF VHTR CMVB Project Management Board	GIF VHTR CMVB Project Management Board					GEMINI+ Coordination Team Meeting	GIF VHTR System Steering Committee
17:00 – 18:00							NC2I Task Force meeting	



- T1: National programmes
- T2: Industrial applications
- T3: Fuel and waste
- T4: Materials & components
- T5: Reactor physics
- T6: Computer codes
- T7: Design & engineering
- T8: Safety & licensing

WiFi: NOVOTEL
 Register with your e-mail

Conference help:
 +48 514 96 18 79