
PRELIMINARY PROGRAMME

May 2, 2024

KERNTECHNIK

2024

PROGRAM STRUCTURE BY DAY

PRE - PROGRAMM

Monday
June 10, 2024

General assembly



Pre-Workshop

Communication in nuclear
technology

Get Together



from 4:30 pm

Tuesday
June 11, 2024

Key Notes

Technical Sessions

Industry Exhibition

Poster Session



Social evening in the
industry exhibition

09:00 am - 11:00 pm

Wednesday
June 12, 2024

Topical Sessions



Technical Sessions

Industry Exhibition

Poster Session



Conference dinner with
evening program

09:00 am - 01:00 am

Thursday
June 13, 2024

Key Notes

Industry Exhibition

Award ceremony

09:00 am - 02:00 pm

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KEY NOTES

Tuesday, June 11 2024

09:40-10:10



Staffan Reveman
Reveman Energy Academy

Trends in the competitive energy supply of the future in Germany and worldwide

10:10-10:40



Dr. Jörg Harren
Managing Director
Urenco Germany

The future of uranium enrichment: energy crisis, technology and the role of Urenco

11:30-12:00



Andreas Volz
Consultant at the Federal Ministry of Education and Research (BMBF)

Promoting the maintenance of expertise in the BMBF's nuclear safety research and decommissioning research programs

12:00-12:30



Peter Gerner
Vice President Business Line „Service“ und „Decommissioning & Waste“ Framatome

Continuity in NPP Services: key contributor to operational excellence, LTO, efficient decommissioning and sustainable waste management

06:30-07:15
pm



Vince Ebert
Physics graduate and cabaret artist

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KEY NOTES

Thursday, Juni 13 2024

09:00-09:30



Dr. Martin Pache

Managing Director
Westinghouse Germany

Advanced power generation solutions for the 21st century

09:30-10:00



Rafal Kasprów

CEO ORLEN Synthos Green Energy

Competitive supply of industry with electricity and heat through SMR or, in the future, through Advanced Modular Reactors as part of Poland's way to nuclear

10:00-10:30



Dr. Robert Wolf

Head of Stellarator Heating and Optimization at the Max Planck Institute for Plasma Physics

Fusion research on the way to becoming an energy source - status, prospects and challenges

11:15-11:45



Dr. Christian Raetzke

Lawyer and expert in nuclear and radiation protection law

Legal framework for nuclear fusion

11:45-12:15



Dr. Ulla Engelmann

Director at the JRC site in Karlsruhe and JRC Director of Directorate G for Nuclear Safety of the European Commission

The Joint Research Center of the European Commission - Contributions to nuclear safety and security

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PROGRAM COMMITTEE

Competence & Safety

Dr. Thorsten Hollands

Gesellschaft für Anlagen- und Reaktorsicherheit

Dr. Walter Tromm

Karlsruher Institute for Technology

Dr. Thomas Mull

Framatome

Prof. Dr. Marco K. Koch

Ruhr-University Bochum

Florian Krist

Young Generation Kerntechnische Gesellschaft e.V.

Decommissioning & Waste Treatment

Dr. Anke Traichel

EWN Entsorgungswerk für Nuklearanlagen

Thomas Seipolt

NUKEM Technologies Engineering Services

Frank Apel

Kerntechnische Gesellschaft e.V.

Prof. Dr. Sascha Gentes

Karlsruher Institute for Technology

International Trends & Developments

Dr. Andreas Schaffrath

Gesellschaft für Anlagen- und Reaktorsicherheit

Dr. Tatiana Salnikova

Framatome

Dr. Kai Kosowski

PreussenElektra

Interim & Final Storage

Dr. Jens Schröder (Chair)

GNS Gesellschaft für Nuklear-Service

Dr. Angelika Bohnstedt

Karlsruher Institute for Technology

Michael Köbl

GNS Gesellschaft für Nuklear-Service

Young Scientist's Workshop Jury

Prof. Dr. Jörg Starflinger

University of Stuttgart

Prof. Dr. Marco K. Koch

Ruhr-University Bochum

Matthias Daichendt

Kraftanlagen Heidelberg

TECHNICAL SESSIONS

Tuesday, June 11 2024 | 1/2

02:00-02:15	Boyu Pan, RWTH Aachen A hybrid experimental and numerical investigation on the Cr ₂ AlC coated zirconium for accident-tolerant fuel systems	Dr. Hans-Georg Willschütz, PreussenElektra Steps for releasing the containment vessel at NPP Stade
02:15-02:30	Julia Krieger, Ruhr-University Bochum Analyses of a postulated severe accident in a generic Small Modular Reactor using AC ²	Dr. Bastian Weinhorst, Safetec Material clearance measurement under the influence of natural occurring radioactive material
02:30-02:45	Maximilian Hoffmann, Ruhr-University Bochum Simulation of selected COTELS experiments with flooded MCCI using AC ² -COCOSYS and MELCOR	Prof. Uwe Hampel, Helmholtz-Centre Dresden-Rossendorf Measurement techniques for the analysis of contaminated concrete structures in the containment of pressurized water reactors during power plant decommissioning
02:45-03:00	Nicole Richter, Ruhr-University Bochum Development of an ML model to predict the long-term cooling capacity of packed beds	Valentin Vierhub-Lorenz, Fraunhofer Institute Laser-based measurement system for the detection of subsurface anomalies
03:00-03:15	Nikolai Rensch, Karlsruhe Institute for Technology Experimental Investigation of the Dryout and Post-Dryout Heat Transfer with R-134a at High Subcritical Pressure	Marco Sauder, KRANTZ Influence of innovative nuclear decommissioning methods on HEPA filter systems
03:15-03:30	Jan Peschel, Ruhr-University Bochum Extension of the AC ² program package for the simulation of debris beds in the lower reactor plenum	Pratibha Yadav, University of Stuttgart Application of Weight Parameters generated via Recursive Monte Carlo Method for Optimized Shielding Calculations

TECHNICAL SESSIONS

Tuesday, June 11 2024 | 2/2

04:15-04:30	<p>Dr. Andreas Schaffrath, Gesellschaft für Anlagen- und Reaktorsicherheit & Prof. Jörg Starflinger, University of Stuttgart Development and validation of a calculation chain for the simulation of so-called Micro Modular Reactors</p>	<p>Robert Schneider & Jens Pauluhn, GNS Gesellschaft für Nuklear-Service CASTOR® geo24B and geo32CH: Establishing a new cask family from experimental testing to final acceptance</p>
04:30-04:45	<p>Daniel Eckert, Gesellschaft für Anlagen- und Reaktorsicherheit Development of a heat pipe model for athlet</p>	<p>Frank Schröder, GNS Gesellschaft für Nuklear-Service Implementation of specifications for the ageing management of transport and storage containers in transport law</p>
04:45-05:00	<p>Ruggero Meucci, University of Stuttgart Advancing Micro Modular Reactor Safety: Experimental Analysis on Liquid Metal Heat Pipe Prototypes in the MISHA Project</p>	<p>André Indenhuck, WTI Wissenschaftlich-Technische Ingenieurberatung Radiological considerations for the determination of minimum distances for sites of waste and/or fuel element interim storage facilities of BGZ</p>
05:00-05:15	<p>Jakub Bronik, University of Stuttgart Experimental investigation of heat transfer at and post- critical heat flux in CO2 flow at high subcritical pressures</p>	<p>Marcus Ries, Wölfel Engineering Design of an interim storage facility and its container stack against external effects from earthquakes and blast waves</p>
05:15-05:30	<p>Marco Viebach, Technical University Dresden NAUTILUS: Experimental methods for investigating innovative approaches to nuclear waste management and nuclear safety</p>	<p>Julia Niedermeier, Technical University Muenich The Mutomca project - an overview</p>
05:30-05:45	<p>Wilfried Hahn, Copenhagen Atomic Small modular reactors with molten salt at a fraction of the cost of conventional nuclear power plants</p>	<p>Suzanne Eisenhofer, Technical University Dresden Muon imaging of transport and storage casks</p>

TECHNICAL SESSIONS

Wednesday, June 12 2024 | 1/4

09:00-09:15	Tanzila Nurjahan, Technical University Dresden In-situ moisture monitoring in nuclear power plants using electrical sensors: an innovative and cost-effective approach to decommissioning processes	Marisa van der Walt, PALLAS Quality Assurance Concept for Design Review and Manufacturing of Long Lead Items
09:15-09:30	Lotte Lens, Hochschule Mannheim Characterization and decontamination of irradiated reactor graphite	Eduardo Vera Garcia & Alexander Ostermann, Framatome / Areva OL3 Commissioning from Viewpoint of Safety Engineering & Licensing
09:30-09:45	Lorie Meunier, Hochschule Mannheim Characterization of irradiated graphite samples using LSC and spectroscopy methods	Dr. Thomas Riekert, TÜV NORD EnSys Concept for the safety assessment of new reactors using IAEA guidelines and previous reviews
09:45-10:00	Melanie Müßle, Karlsruher Institute for Technology Digitization of room data acquisition during building release	Eric Rentschler, Karlsruher Institute for Technology Development of a decontamination tool for inside edges and corners (EKONT-2)
10:00-10:15	Tania Barretto, Karlsruher Institute for Technology Automated non-destructive internal corrosion detection on radioactive drums (ZIKA)	
10:15-10:30	Eric Rentschler, Karlsruher Institute for Technology Development of a decontamination tool for inside edges and corners (EKONT-2)	

TECHNICAL SESSIONS

Wednesday, June 12 2024 | 2/4

11:15-11:30	Magnus Schweiger, Universität der Bundeswehr München A-priori assessment of sub-grid scale heat flux modeling in large-eddy simulation for varying Prandtl numbers	Dr. Jens-Uwe Schmollack, TÜV Rheinland & Horst Miedl, TÜV Rheinland Use of robots in the regulated environment of radiation protection and nuclear law
11:30-11:45	Fabian Wiltchko, Karlsruher Institut für Technologie Characterization and decontamination of irradiated reactor graphite	
11:45-12:00	Sebastian Leopoldus, Universität Stuttgart Mechanistic modelling of dryout-type CHF in the near-critical pressure regime	Dominique Kugler, TÜV SÜD France ISO 19443 a standard to improve the reliability of the nuclear supply chain
12:00-12:15	Jinming Zhang, Helmholtz-Centre Dresden-Rossendorf Heat Transfer enhancement for nucleate boiling with microlayer evaporation on micro-pillar arrayed surface	Dr. Andreas Wensauer, PreussenElektra The HDL sorting station as an application example for the PreußenElektra specification Device technology
12:15-12:30	Allen George, Forschungszentrum Jülich Effect of bulk condensation on containment atmosphere mixing	
12:30-12:45	Gürel Özesme, Karlsruher Institut für Technologie Impact of the boundary conditions and buoyancy on turbulent heat transfer at supercritical pressure: LES study	Ingo Kleinsorge, TÜV SÜD Industrie Service The benefits of the device technology specification from the expert's perspective

TECHNICAL SESSIONS

Wednesday, June 12 2024 | 3/4

02:00-02:15	Robert Altschaffel, Otto-von-Guericke-Universität Magdeburg Fingerprinting the network behavior of control technology to evaluate security mechanisms	Dr. Christoph Klein, NUKEM Technologies Engineering Services Development and test of a sorting system for soil with conventional and radiological contamination
02:15-02:30	Romarick Yatagha, Framatome Trustworthy AI applications for the nuclear domain	Marcus Trempler, Siempelkamp NIS Ingenieurgesellschaft Fort Calhoun Decommissioning and Demolition Project
02:30-02:45	Erkin Kirdan, Framatome Detectiv physical controls for NPPs, interim storage	Dirk Bender, Orano Decommissioning Services Optimized segmentation of the Crystal River Unit 3
02:45-03:00	David Lauer, KSB Additive manufacturing - innovative manufacturing process	Daniele David, Framatome Waste Management in Small Modular Reactors: "is it receiving enough attention?"
03:00-03:15	Dr. Christan Raetzke, Conlar Challenges in regulating SMRs	Dominik Krupp, Safetec Decommissioning 4.0 - The digitalization of nuclear decommissioning in Germany
03:15-03:30	Dr. Marc Zimmer, Focused Energy Laser-based nuclear fusion and a spin-off technology for non-destructive intermediate level nuclear waste container inspection	Michael Pfau, Karlsruher Institute for Technology Presentation of the research project to develop a sampling system including a quality-assured sampling process for inaccessible plastic pipelines (Bero)

TECHNICAL SESSIONS

Wednesday, June 12 2024 | 4/4

04:30-04:45	Ronald Lehnigk, Helmholtz-Centre Dresden - Rossendorf Sustainable development of CFD software for the modeling of reactor cooling circuits	Kaisa Pellinen, Fortum Power and Heat Creating operation manuals for a waste management organization
04:45-05:00	Lars Heibges, Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau Investigation of the protective effect of the soil under shock loads	Alexander Schwardt, TÜV NORD EnSys Numerical modeling for the assessment of exposure via the groundwater pathway during landfilling of released radioactive waste
05:00-05:15	Lukas Helm, Rheinland-Pfälzische Technische Universität Kaiserslautern Landau Comparison of methods for the direct determination of floor response spectra from the soil response spectrum	Lisa Seidel, Bundesgesellschaft für Endlagerung The site selection procedure
05:15-05:30	Lars Ackermann, Framatome Optimizing Shielding Fuel Assembly Design	Amin Bannani, GNS Gesellschaft für Nuklear-Service Concepts for disposal containers in crystalline host rock in Germany
05:30-05:45	Dr. Bruno Miglierini, Framatome Development of VVER fuel engineering services	Marc Roßmüller, Bundesgesellschaft für Endlagerung Konrad repository: Challenges in replacing the guide frame for Shaft 1
		Josef Schindler, Framatome Practical cybersecurity hardening for interim storage and final disposal facilities

POSTER SESSION

<p>Dr. Marina Sokcic-Kostic, NUKEM Technologies Engineering Services</p> <p>Radiological characterization of waste: from free release measurement up to the measurement of high active waste</p>	<p>Viktoriia Gasanova, University of Stuttgart</p> <p>Innovative Additive Manufacturing of Prototypical Heat Pipes for Passive Heat Exchange in Small Modular Reactors</p>	<p>Tomasz Schiller, ORANO</p> <p>Robot-assisted thermal separation under water in a NPP decommissioning plant</p>
<p>Alexander Franz, Friotherm</p> <p>Challenges for chillers for nuclear applications</p>	<p>Dr. John Kettler, actimondo</p> <p>K.I.S.S. - Competence. Innovation. Safety. Radiation Protection</p>	<p>Martin Kamp, SCHAAF</p> <p>Innovative bolting solutions for the nuclear power industry</p>
<p>Hannes Grosche, ORANO</p> <p>Sampling of contaminated and activated reactor components - lessons learned from current projects</p>	<p>Daniel Hackl, Technische Universität Wien</p> <p>Determination of the activity of a selection of cobalt-60 and caesium-137 radiation sources</p>	<p>Niklas Heiß, Hochschule Mannheim</p> <p>Estimating the Activity Inventory of Irradiated Reactor Radiographites by Using FLUKA</p>
<p>Prof. Ulrich Scherer, Hochschule Mannheim</p> <p>Teaching Competences for Decommissioning and Nuclear Waste Management</p>	<p>Marco Hildmann, Wölfel Engineering</p> <p>Design and calculation of the above-ground building parts of a repository for the earthquake load case on the basis of the KTA</p>	<p>Dr. Carmen Krau, Siempelkamp NIS Ingenieurgesellschaft</p> <p>Optimization of the Zwiilag conditioning plant - implementation of the NEUKON project</p>

POSTER SESSION

<p>Norman Dünne, University of Stuttgart Neutronic modelling of the Special Purpose Reactor MMR with Serpent as a part of the MISHA project</p>	<p>Simon Pickstone, WTI Wissenschaftlich-Technische Ingenieurberatung Nuclear design of packages for LLW and ILW from nuclear power plants</p>	<p>Alexander Knospe, Technische Universität Dresden Application of the pile oscillator at the research and training reactor AKR-2</p>
<p>Dr. Eileen Langegger, DMT Scaling Factors in Metallic waste and its Implication on Waste Management Routes- Results from PREDIS WP 4</p>	<p>Alexander Heneka, Karlsruher Institut für Technologie Continuously operated separation system for abrasive preparation for the water-abrasive suspension cutting process</p>	<p>Siavash Kazemi, Karlsruher Institute for Technology Development of a robotic system to automate the decontamination of nuclear facilities</p>
<p>David Bergandt, GNS Gesellschaft für Nuklearservice The T-Box – design and operations of the high-capacity packaging solution for activated core components</p>	<p>Matthias Peiretti, Universität Stuttgart Supercritical CO2 recuperated cycle part load operations employing turbine throttle valve</p>	<p>Cristiano Padovani, Jacobs The Durability of ILW containers during interim storage and designing suitable storage environmental controls</p>
<p>Michael Blase, Westinghouse Electric Germany Supercritical Water Oxidation (SCWO) of Spent Radioactive Resins</p>		

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