NOMATEN
Centre of Excellence in Multifunctional Materials for Industrial and Medical Applications

NATIONAL CENTRE FOR NUCLEAR RESEARCH ŚWIERK

VTT

cea



NOMATEN WINTER SCHOOL

13-14.10.2026

PROGRAMME

European Funds Smart Growth

Republic of Poland

European Union
European Regional Development Fund

Ministry of Science and Higher Education
Republic of Poland

We acknowledge support from the European Union's Horizon 2020 research and innovation program under the NOMATEN Teaming grant agreement No. 857470 and from the Ministry of Science and Higher Education's initiative „Support for the Activities of Centers of Excellence Established in Poland under the Horizon 2020 Program" under agreement No. MEiN/2023/DIR/3795.

Programme overview

All scientific sessions take place in the “Ewa” room at PNT. Coffee breaks and buffet lunches are served in the neighboring “Maria” room.

Monday, 12 October · Day 0

TIME	PROGRAMME
17:30 – 19:30	Guided tour of Warsaw · *pre-registration required* **Meeting point: Novotel Warszawa Centrum**

Tuesday, 13 October · Day 1

TIME	PROGRAMME
07:10 – 07:15	Pick-up from the hotel · *exact location to be confirmed*
07:15 – 08:30	Transfer to NCBJ and entrance procedures
08:30 – 09:00	Registration at PNT and welcome coffee
09:00 – 12:15	**Session 1** · Introductions
12:15 – 13:30	*Lunch break and discussions*
13:30 – 16:00	**Session 2** · Radiopharmaceutical Sciences
16:00 – 18:15	**Laboratory visits, scientific exchange and coffee**
18:15 – 18:30	Summary of Day 1
18:30 – 19:30	Transfer to Warsaw
19:30	**Welcome dinner · Restaurant “Słoik”, Złota 11, Warsaw** https://restauracjasloik.pl/

Wednesday, 14 October · Day 2

TIME	PROGRAMME
07:10 – 07:15	Pick-up from the hotel · *exact location to be confirmed*
07:15 – 08:30	Transfer to NCBJ, entrance procedures and welcome coffee
08:30 – 12:15	**Session 3** · PhD Session – Part 1 and 2
12:15 – 13:00	*Lunch break and discussions*
13:00 – 15:30	**Session 4** · Materials Science — Nuclear
15:45 – 18:15	**Session 5** · Materials Science — Non-nuclear
18:15 – 18:30	**Closing of the School**
18:30	Departure to Warsaw

Please remember to bring your passport or national ID card for access to the NCBJ site.



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Tuesday, 13 October · Day 1

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TIME	PROGRAMME
07:10 – 07:15	Pick-up from the hotel · *exact location to be confirmed*
07:15 – 08:30	Transfer to NCBJ and entrance procedures
08:30 – 09:00	Registration at PNT and welcome coffee
SESSION 1 · INTRODUCTIONS Chairs: Iwona Jóźwik (NCBJ) · Jacek Jagielski (NCBJ)	
09:00 – 09:15	Welcome and opening of the School **Iwona Jóźwik (NCBJ) · Remarks by Prof. Jakub Kupecki, Director of NCBJ**
09:15 – 09:30	NOMATEN — the EU Teaming project: latest news **Jacek Jagielski (NCBJ)**
09:30 – 09:45	Recent activities of the NOMATEN Centre of Excellence **Łukasz Kurpaska (NCBJ)**
09:45 – 10:00	Collaboration activities and opportunities — VTT **Maria Oksa (VTT)**
10:00 – 10:15	Collaboration activities and opportunities — CEA **Frédéric Dollé and Christophe Gallé (CEA)**
10:15 – 10:30	Collaboration activities and opportunities — NCBJ **Jacek Jagielski (NCBJ)**
10:30 – 11:00	*Coffee break*
11:00 – 11:15	Research Group: Materials Design and Manufacturing **Silvia Bonfanti (NCBJ)**
11:15 – 11:30	Research Group: Multiscale Hybrid Modelling of Materials **Francisco Javier Dominguez-Gutierrez (NCBJ)**
11:30 – 11:45	Research Group: Functional Properties of Materials **Łukasz Kurpaska (NCBJ)**
11:45 – 12:00	Research Group: Materials Characterization **Iwona Jóźwik (NCBJ)**
12:00 – 12:15	Research Group: Novel Radiopharmaceuticals for Medical Purposes **Marek Pruszyński (NCBJ)**
12:15 – 13:30	*Lunch break and discussions*



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SESSION 2 · RADIOPHARMACEUTICAL SCIENCES Chairs: Frédéric Dollé (CEA) · Marek Pruszyński (NCBJ)	
13:30 – 14:00	Radiopharmaceuticals Research at the Institute of Nuclear Chemistry and Technology · *Invited talk* **Rafał Walczak (Institute of Nuclear Chemistry and Technology, Warsaw, Poland)**
14:00 – 14:15	Fluorinated nanohybrid micelles carrying ^{177}Lu, gold, and oxygen for potentiated internal radiotherapy **Eric Doris (CEA)**
14:15 – 14:30	Activatable micelles for cancer therapy **Edmond Gravel (CEA)**
14:30 – 14:45	Novel Theranostic Radiopharmaceuticals: Exploring New Collaboration Opportunities with CEA and VTT **Marek Pruszyński (NCBJ)**
14:45 – 15:00	*Coffee break*
15:00 – 15:15	Bambusurils: Efficient Receptors for Halides and Radiohalides **Marie-Pierre Heck (CEA) and Gopi Elumalai (NCBJ)**
15:15 – 15:30	Fast bioorthogonal reactions for efficient radiolabeling of biologics **Frédéric Taran (CEA)**
15:30 – 15:45	SONATA project: Radioiodinated PD-L1 inhibitors for targeted radionuclide therapy **Anna Krzyczmonik (NCBJ)**
15:45 – 16:00	Study of cellular responses to ultra-high doses of electron radiation: in search of biological mechanisms of the FLASH effect — NCN SONATA-BIS proposal **Marcin Zieliński (NCBJ)**
16:00 – 18:15	**Laboratory visits, scientific exchange and coffee**
18:15 – 18:30	Summary of Day 1
18:30	Departure from NCBJ to Warsaw
19:30	**Welcome dinner · Restaurant "Słoik", Złota 11, Warsaw** https://restauracjasloik.pl/

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Wednesday, 14 October · Day 2

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TIME	PROGRAMME
07:10 – 07:15	Pick-up from the hotel · *exact location to be confirmed*
07:15 – 08:30	Transfer to NCBJ, entrance procedures and welcome coffee
SESSION 3 · PhD SESSION — PART 1 Chairs: Frédéric Dollé (CEA) · Łukasz Kurpaska (NCBJ) · Jenna Järvenpää (VTT)	
08:30 – 08:45	Microstructure Stability and Corrosion Behavior of Co-Free CrFeMnNiAl High-Entropy Alloys **Katarzyna Ciporska (NCBJ)**
08:45 – 09:00	Activatable micelles for the treatment of radioresistant tumors **Lea Cotel (CEA)**
09:00 – 09:15	Modeling laser powder bed fusion (LPBF) of metallic glasses **Anna Dziarmaga-Działyńska (NCBJ)**
09:15 – 09:30	Metal–Organic Frameworks for Radioactive Iodine Capture and Actinide Adsorption: Candidate Selection for the HERA Project **Suvi Lamminmäki (VTT)**
09:30 – 09:45	New C–H activation strategies combined with fluorine-18 labeling to accelerate the development of radiotracers for PET imaging **Jean-Baptiste Lecomte (CEA)**
09:45 – 10:00	Bambusurils as Supramolecular Carriers for Radiohalogens **Marion Mainetti (CEA)**
10:00 – 10:15	Development of new bioconjugation techniques for efficient radiopharmaceuticals preparation and for pretargeting approaches **Clémence Marre (CEA)**
10:15 – 10:30	*Coffee break*
SESSION 3 · PhD SESSION — PART 2 Chairs: Frédéric Dollé (CEA) · Łukasz Kurpaska (NCBJ) · Kristiina Iljin (VTT)	
10:30 – 10:45	Stabilization of secondary phases in nano-reinforced ferritic steels: a high-throughput screening approach for chemical compositions **Florian Pouyllau (CEA)**
10:45 – 11:00	Novel prosthetic groups for radioiodination of octreotide via disulfide rebridging **Ihab Shokair (NCBJ)**



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11:00 – 11:15	Influence of the microstructure of 316L steel produced by L-PBF process on its mechanical properties: characterization and modelling of creep and fatigue behaviour **César Villatoro (CEA)**
11:15 – 11:30	Foundation Potentials and Metallic Glasses **Antoni Wadowski (NCBJ)**
11:30 – 11:45	Understanding ion-irradiation effects on Ni43.5Fe33.5Mn6Cr11Al6 and Ni70Mo10Cr13Al7 alloys via nanoindentation **Peichen Wang (NCBJ)**
11:45 – 12:00	Microstructural exploration of a compositional gradient in W-Ta-Cr-V high-entropy alloy thin films for fusion applications **Magdalena Wilczopolska (NCBJ)**
12:00 – 12:15	Study of ion implantation and material damage in Cantor-like alloys **Maciej Wilczyński (NCBJ)**
12:15 – 13:00	*Lunch break and discussions*
SESSION 4 · MATERIALS SCIENCE — NUCLEAR Chairs: Christophe Gallé (CEA) · Tymofii Khvan (NCBJ)	
13:00 – 13:30	An experimental-based multiscale method for calculating radiation-enhanced mobility in solids: application to radiation-induced microstructure in FeCr · *Invited talk* **David Simeone (CEA)**
13:30 – 13:45	Radiation-induced defect evolution and high-temperature stability of a Co-free FCC FeCrMnNiAl high-entropy alloy **Agata Zaborowska (NCBJ)**
13:45 – 14:00	Irradiation damage in W and WTaCrV from molecular dynamics simulations **Mark Fedorov (NCBJ)**
14:00 – 14:15	Quantification of grain-scale localized plasticity by micro-DIC for developing physical models of IASCC **Wade Karlsen (VTT)**
14:15 – 14:30	*Coffee break*
14:30 – 14:45	New NOMATEN facilities for testing high-pressure/high-temperature corrosion **Agata Sotniczuk (NCBJ)**
14:45 – 15:00	Impact of lead corrosion on austenitic stainless steels before and after ion irradiation for Gen IV reactors **Salomé Parent (CEA)**
15:00 – 15:15	Study of the Behaviour of a Titanium Alloy (TA6V) under Physico-Chemical Conditions of a Pressurized Water Reactor **Romain Abadie (CEA)**



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15:15 – 15:30	Neutron activation and nuclear decommissioning **Antti Räty (VTT)**
15:30 – 15:45	*Coffee break*
SESSION 5 · MATERIALS SCIENCE — NON-NUCLEAR Chairs: Maria Oksa (VTT) · Silvia Bonfanti (NCBJ)	
15:45 – 16:15	From First Principles to Large-Scale Atomistic Simulations: Multiscale Modelling of High-Entropy Alloys · *Invited talk* **Jan Wróbel (Warsaw University of Technology, Warsaw, Poland)**
16:15 – 16:30	Design of bcc-superalloys. From phase diagrams to mechanical properties optimization of Fe-Al base alloys **Pedro A. Ferreirós (VTT)**
16:30 – 16:45	Cobalt-free high-entropy alloys with enhanced strength–ductility synergy and reduced thermal diffusivity **Wenyi Huo (NCBJ)**
16:45 – 17:00	CALPHAD-assisted design of reduced critical rare-earth permanent magnets **Agustin Flores (CEA)**
17:00 – 17:15	*Coffee break*
17:15 – 17:30	Two-scale FEM modeling of the recyclable, woven FRP composite **Karol Frydrych (NCBJ)**
17:30 – 17:45	Tuning dynamics and mechanics of disordered systems via structural constraints **Anshul D. S. Parmar (NCBJ)**
17:45 – 18:00	Electrically Conductive 2D Metal–Organic Frameworks for Electrochemical Sensors **Mikko Vepsäläinen (VTT)**
18:00 – 18:15	Next-generation hydrogen technology: fast detection & passive neutralization for industrial applications **Mewenn Yvin (CEA)**
18:15 – 18:30	**End of Day 2 and closing of the School**
18:30	Departure from NCBJ to Warsaw



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