

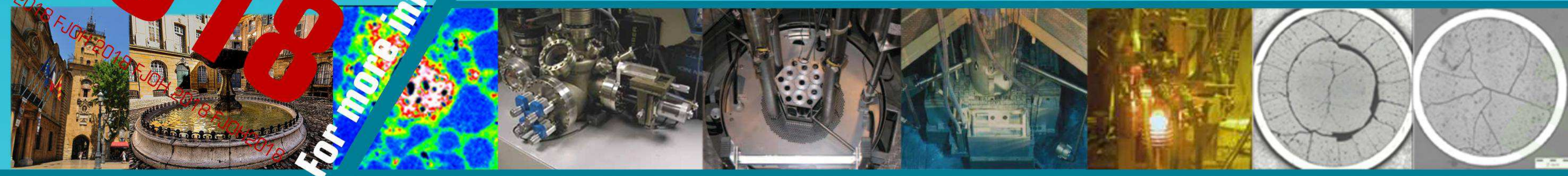
# FJOH 2018

Frédéric JOLIOT & Otto HAHN  
 SUMMER SCHOOL ON  
 "NUCLEAR REACTORS  
 "Physics, Fuels and Systems"  
 For more information, please visit our web site: [www.fjohss.eu](http://www.fjohss.eu)

August 22 - 31, 2018 - Aix-en-Provence, France



## Maximizing the Benefits of Experiments for the Simulation, Design and Analysis of Reactors



<b>J. Gulliford</b> (OECD)	<b>Introduction</b> - The Key Role of Experiments to Address Validation and Safety-related Challenges	1 h
<b>P. Schillebeeckx</b> (JRC/IRMM) <b>O. Serot</b> (CEA) <b>A. Kochetkov</b> (SCK/CEN) <b>C. Destouches</b> (CEA)	<b>Experiments for Improved Nuclear and Neutron Physics Models</b> - From Experimental Data to Evaluated Cross Section Files - Experiments for Improved Modelling of Fission Observables - From Traditional to Advanced Neutron Physics Validation Experiments - High-resolution Detection Techniques in Nuclear Reactor Environments	8 h (2h) (2h) (2h) (2h)
<b>D. Bestion</b> (CEA) & <b>S. Mimouni</b> (EdF)  <b>J.L. Muñoz-Cobo</b> (UPV) <b>U. Hampel</b> (HZDR) <b>C.H. Song</b> (KAERI)	<b>New Experiments for Scale-bridging Thermo-hydraulics</b> - Multiscale Methodology with Various Experiments: Applications to Loss of Coolant Accidents and Critical Heat Flux - Scaling Methods to Design Experiments, Extrapolation Issues, Applications - High-Resolution Flow Measurement Techniques for the Generation of Validation Data - Challenging Experiments for Validating Advanced Two-phase Flow Analysis Codes and their Constitutive Laws	9 h (3h) (2h) (2h) (2h)
<b>N. Waeckel</b> (EdF)  <b>S. Zinkle</b> (Knoxville Univ.) & <b>J. Noirod</b> (CEA)  <b>S. Holcombe</b> (Halden) & <b>D. Parrat</b> (CEA)	<b>Experiments for Fuel and Material Multiscale Modelling</b> - Overview on Key Needs for Operation, Design and Licensing: Fuel and Material Performance under Irradiation - From Traditional to Advanced Characterization Techniques What we Have Learned and Have Yet to Learn - In-pile Experiments in MTRs, Experimental Fuel Assemblies and On-line Instrumentation	10 h (2h) (5h) (3h)
<b>G. Bruna</b> (IRSN) <b>N. Dinh</b> (North Carolina State Univ.) <b>T. Downar</b> (Univ. of Michigan)	<b>Experiments for Improved Safety Demonstration and Operational Support</b> - Assessing Confidence in Nuclear Safety - A Data-driven Approach to Validation of Advanced Thermal-hydraulics Models - The Validation of High Fidelity Reactor Simulations	6 h (2h) (2h) (2h)
<b>E. Gilad</b> (Ben-Gurion Univ.)	<b>Group Reflection on Selected Scientific Topics</b>  <b>Seminar</b> - The Challenge of Competence Building for Emerging Nuclear Energy Countries	6 h  2 h
	<b>Technical visits of CEA Cadarache R&amp;D facilities</b>	

Extra-curricular activities and a weekend programme will be organized. Full registration fees, including lodging and food: €2000 - Reduced fees: €1000 for fellowship recipients.



For any information, please contact the FJOH school secretariat at [fjoh@cea.fr](mailto:fjoh@cea.fr) or visit our web site [www.fjohss.eu](http://www.fjohss.eu)