

PROGRAM OF THE VIRTUAL SOFT 2020

Monday, 21st of September 2020

- 09:00-09:30 Opening of the Virtual SOFT 2020:
Tonči Tadić, SOFT IOC Chair
Iva Bogdanović Radović, SOFT 2020 LOC Chair
David M. Smith, RBI Director
Sven Gotovac, Univ. of Split, FESB Dean
- 09:30-10:00 Representative of Government of the Republic of Croatia
Patrick Child, Representative of European Commission
- 10:00-10:30 SOFT Prize
- 10:30-11:00 Plenary Invited Talk:
Bernard Bigot: “ITER Assembly Phase: Progress Toward First Plasma”
- 11:00-11:15 Questions & Answers
- 11:15-11:45 Coffee Break
- 11:45-12:15 Topic E: Diagnostics
Topic Invited Talk:
Nuno Cruz (IST): “Advanced high-performance processing tools for diagnostics and control in fusion devices”
- 12:15-12:45 Topic E: Diagnostics
Topic Invited Talk:
Matthew Carr (UKAEA): “The Raysect and Cherab ray tracing frameworks for fusion diagnostic forward modelling”
- 12:45-13:15 Topic E: Diagnostics
Topic Invited Talk:
Ivan Duran (IPP Prague): “New approaches for magnetic diagnostic of future fusion devices”
- 13:15-14:00 Questions & Answers
- 14:00-15:00 Lunch Break
- 15:00-15:30 Topic C: Plasma Heating and Current Drive
Topic Invited Talk:
Chuanren Wu (KIT): “Basic design considerations for a frequency-tunable ECRH&CD system to suppress NTMs in DEMO”
- 15:30-16:00 Topic C: Plasma Heating and Current Drive
Topic Invited Talk:
Vanni Toigo (ENEA): “On the road to ITER NBIs: SPIDER improvement after first operation and MITICA 1MV integrated power test”

- 16:00-17:00 Questions & Answers
- 17:00-18:30 Poster Session I
- 18:30-20:00 Women at SOFT

Tuesday, 22nd of September 2020

- 09:00-09:30 Plenary Invited Talk:
Johannes Schwemmer: “Fusion for Energy Progress Report”
- 09:30-10:00 Plenary Invited Talk:
Tony Donn : “Challenges and progress on the path towards fusion energy”
- 10:00-10:30 Plenary Invited Talk:
Enrico Di Pietro: “JT-60SA towards first plasma”
- 10:30-11:15 Questions & Answers
- 11:15-11:45 Coffee Break
- 11:45-12:15 Topic G: Plasma-Facing Components
Topic Invited Talk:
Miroslav Zlobinski (FZJ): “Development of a Laser-based Diagnostic for in situ Monitoring of Fuel Retention: from Laboratory via JET towards ITER”
- 12:15-12:45 Topic G: Plasma-Facing Components
Topic Invited Talk:
Hans van Eck (DIFFER): “Performance of tungsten plasma-facing components under ITER-relevant loading conditions in the Magnum-PSI linear plasma facility”
- 12:45-13:15 Topic G: Plasma-Facing Components
Topic Invited Talk:
Alex Grosjean (CEA): “Impact of Misalignments on ITER-like Plasma Facing Components in WEST Tokamak”
- 13:15-14:00 Questions & Answers
- 14:00-15:00 Lunch Break
- 15:00-15:30 Topic D: Plasma Engineering, Plasma Control, and CODAC
Topic Invited Talk:
Filip Janky (IPP Garching): “DEMO control challenges”
- 15:30-16:00 Topic D: Plasma Engineering, Plasma Control, and CODAC
Topic Invited Talk:
Larry Baylor (ORNL): “Progress in Plasma Disruption Mitigation Technology”

16:00-17:00 Questions & Answers

17:00-18:30 Poster Session II

Wednesday, 23rd of September 2020

09:00-09:30 Plenary Invited Talk:
Gianfranco Federici (EUROfusion): “DEMO Programme in Europe”

09:30-10:00 Plenary Invited Talk:
Michael Endler (IPP): “Wendelstein 7-X on the path to long-pulse high-performance operation”

10:00-10:30 Plenary Invited Talk:
Roberto Ambrosino (ENEA): “DTT - Divertor Tokamak Test facility: a testbed for DEMO”

10:30-11:15 Questions & Answers

11:15-11:45 Coffee Break

11:45-12:15 Topic I: Fuel Cycle and Breeding Blankets
Topic Invited Talk:
Carlos Moreno (CIEMAT): “Tritium control strategy in the breeding blanket concepts”

12:15-12:45 Topic I: Fuel Cycle and Breeding Blankets
Topic Invited Talk:
Chiara Mistrangelo (KIT): “MHD flow in liquid metal blankets: major design issues, numerical analysis and code validation”

12:45-13:15 Topic I: Fuel Cycle and Breeding Blankets
Topic Invited Talk:
Marigrazia Moscardini (UNIPD): “Discrete Element Analysis to characterize the thermo-mechanical behaviour of fusion pebble beds”

13:15-14:00 Questions & Answers

14:00-15:00 Lunch Break

15:00-15:30 Topic H: Vessel/in-vessel Engineering and Remote Handling
Topic Invited Talk:
Oliver Crofts (UKAEA): “DEMO Maintenance Overview”

15:30-16:00 Topic H: Vessel/in-vessel Engineering and Remote Handling
Topic Invited Talk:
Jens Reich (ITER): “Status of ITER Tokamak Assembly”

16:00-17:00 Questions & Answers

17:00-18:30 Poster Session III

Thursday, 24th of September 2020

09:00-09:30 Plenary Invited Talk:
Delong Luo (CINFEPEC): “China's Magnetic Confinement Fusion (MCF) Research and Development”

09:30-10:00 Plenary Invited Talk:
Hartmut Zohm (IPP): “The EU Strategy for solving the DEMO Exhaust Problem”

10:00-10:30 Plenary Invited Talk:
Herve Dzitko (F4E): “Status and future developments of the Linear IFMIF Prototype Accelerator (LIPAc)”

10:30-11:15 Questions & Answers

11:15-11:45 Coffee Break

11:45-12:15 Topic J: Materials Technology
Topic Invited Talk:
Takumi Chikada (Shizuoka Univ.): “Advances in tritium permeation barrier research: An overview”

12:15-12:45 Topic J: Materials Technology
Topic Invited Talk:
Lorenzo Malerba (CIEMAT): “Cross-cutting aspects of fusion materials development”

12:45-13:15 Topic J: Materials Technology
Topic Invited Talk:
Heiko Neuberger (KIT): “Advances in additive manufacturing of fusion materials”

13:15-14:00 Questions & Answers

14:00-15:00 Lunch Break

15:00-15:30 Topic K: Safety and Environment, Socio-economic studies and Tech. Transfer
Topic Invited Talk:
Robert Vale (UKAEA): “Overview of the current waste strategy for a European DEMO fusion reactor”

- 15:30-16:00 Topic K: Safety and Environment, Socio-economic studies and Tech. Transfer
Topic Invited Talk:
Chiara Bustreo (UNIPD): “Role of Fusion in Energy Future”
- 16:00-17:00 Questions & Answers
- 17:00-18:30 Poster Session IV
Friday, 25th of September 2020
- 09:00-09:30 Plenary Invited Talk:
Mike Gorley (UKAEA): “DEMO Structural Materials Qualification and Development”
- 09:30-10:00 Plenary Invited Talk:
Wojciech Królas (IFJ): “IFMIF-DONES fusion-oriented neutron source: present design status”
- 10:00-10:30 Topic F: Magnets and Power Supply Systems
Topic Invited Talk:
Michael Wolf (KIT): “High Temperature Superconductors for Fusion Applications”
- 10:30-11:15 Questions & Answers
- 11:15-11:45 Coffee Break
- 11:45-12:15 Topic A: DEMO, Power Plants and Plant System
Topic Invited Talk:
Mario Pillon (ENEA): “Measurement of the $^{16,17}\text{O}(n,p)^{16,17}\text{N}$ cross sections for validating the Water Activation Experiment for ITER at the Frascati Neutron Generator”
- 12:15-12:45 Topic B: Experimental Devices and Facilities for Fusion Research
Topic Invited Talk:
Petr Vondracek (IPP Prague): “COMPASS Upgrade Project Status and Future Plans”
- 12:45-13:15 Questions & Answers
- 13:15-14:30 Closing of the Virtual SOFT 2020:
Tonči Tadić, SOFT IOC Chair
Iva Bogdanović Radović, SOFT 2020 LOC Chair