



**32nd SYMPOSIUM
ON FUSION TECHNOLOGY**

32ND SYMPOSIUM ON FUSION TECHNOLOGY

18 – 23 September 2022

Dubrovnik, Croatia

Programme



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SUNDAY, 18 SEPTEMBER 2022**REGISTRATION (16:00 – 19:00)**

16:00 – 19:00	Registration Valamar Lacroma Business Center
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MONDAY, 19 SEPTEMBER 2022**OPENING CEREMONY, SOFT PRIZE AND PLENARY SESSION (09:00 – 11:00)****Elafiti Conference Hall**

09:00 – 09:40	Opening Ceremony	
09:40 – 10:20	SOFT Prize	
10:20 – 11:00	Alain Becoulet Further Progress in ITER in Procurement and Assembly	IP-1.1
11:00 – 11:30	Coffee Break	 

ORAL SESSIONS (11:30 – 13:00; 17:00 – 18:40)**Elafiti Hall 3 – Oral Session 1A**

11:30 – 12:00	Gianfranco Federici Topic A. The European Programme Towards a Demonstration Fusion Reactor	IT-1A.1
12:00 – 12:20	Domen Kotnik Topic A. Gamma Dose Field Around the Water Activation Loop at the JSI Irradiation Facility	O-1A.1
12:20 – 12:40	Moataz Harb Topic A. Status of Scoping Nuclear Analyses for the Evolving Design of ITER TBM Port Cells	O-1A.2
12:40 – 13:00	Rachel Lawless Topic I. An Overview of UKAEA's Tritium Research and Development Programme	O-1A.3
13:00 – 14:30	Lunch Break	
14:30 – 17:00	Virtual Poster Session I (Fourwaves)	
16:30 – 17:00	Coffee Break	
14:30 – 19:00	Industry Day & B2B (Nocturno)	

17:00 – 17:30	W. Biel	CANCELED	IT-1A.2
	Topic D.	Preparing the Basis for the DEMO Plasma Diagnostic and Control System	
17:30 – 18:00	J. Wilson		IT-1A.3
	Topic D.	The Technical Challenges of the JET Shattered Pellet Injector to Perform Disruption Mitigation System Studies for ITER	
18:00 – 18:20	Azarakhsh Jalalvand		O-1A.4
	Topic D.	Classifying and Locating Alfvén Eigenmodes Based on ECE Diagnostics at DIII-D Using Neural Networks	
18:20 – 18:40	Ondrej Kudlacek		O-1A.5
	Topic D.	Real Time Coupling of the Equilibrium Solver with the Current Diffusion Equation on ASDEX Upgrade	

Elafiti Hall 2 – Oral Session 1B

11:30 – 12:00	Thomas Barrett		IT-1B.1
	Topic B.	CHIMERA Facility Development Programme and Virtual Results	
12:00 – 12:20	Yongjian Xu		O-1B.1
	Topic B.	Preliminary Experiments of Diagnostic System Based on Secondary Electron Emission for CRAFT NNBI	
12:20 – 12:40	Xavier Litaudon		O-1B.2
	Topic B.	Long Plasma Duration Operation Analyses with an International Multi-Machines (Tokamaks and Stellarators) Database	
12:40 – 13:00	Hans-Stephan Bosch		O-1B.3
	Topic B.	Preparing the Operation of Wendelstein 7-X in the Steady-State Regime	
13:00 – 14:30	Lunch Break		
14:30 – 17:00	Virtual Poster Session I (Fourwaves)		
16:30 – 17:00	Coffee Break		
14:30 – 19:00	Industry Day & B2B (Nocturno)		
17:00 – 17:30	Piero Martin		IT-1B.2
	Topic B.	Physics Basis Behind the DTT Engineering Design	
17:30 – 18:00	Kentaro Ochiai		IT-1B.3
	Topic B.	Progress of Engineering Design Activity for A-FNS	
18:00 – 18:20	Dmitry Terentyev		O-1B.4
	Topic B.	Fusion-Dedicated Material Irradiation Facilities at MYRRHA: Conceptual Design and Damage Equivalence Studies	
18:20 – 18:40	Pierdomenico Lorusso		O-1B.5

Topic B. STEAM Experimental Facility: A Step Forward for the Development of the EU DEMO BoP Water Coolant Technology

Elafiti Hall 1 – Oral Session 1C

11:30 – 12:00	Gustavo Granucci	IT-1C.1
	Topic C. The Additional Heating Systems of DTT Addressing Issues for DEMO HCD Systems	
12:00 – 12:20	Sebastian Stanculovic	O-1C.1
	Topic C. Starting the Operation of the KIT FULGOR Gyrotron Test Facility	
12:20 – 12:40	Claudia Gasparrini	O-1C.2
	Topic C. Status of the SPIDER Source After 3.5 Years Operation	
12:40 – 13:00	Jinfang Wang	O-1C.3
	Topic C. Simulation and Experimental Analysis of Fast-Ion Characteristics After EAST NBI Upgrade	
13:00 – 14:30	Lunch Break	
14:30 – 17:00	Virtual Poster Session I (Fourwaves)	
16:30 – 17:00	Coffee Break	
14:30 – 19:00	Industry Day & B2B (Nocturno)	
17:00 – 17:30	J. Ongena	IT-1C.2
	Topic C. Physics Design, Construction and Commissioning of the ICRH System for W7-X	
17:30 – 18:00	Lena Delpech	IT-1C.3
	Topic C. A New 3MW ECRH System at 105 GHz for WEST	
18:00 – 18:20	Mieko Kashiwagi	O-1C.4
	Topic C. Progress of R&D for 1MV High Voltage Power Supply for ITER NBI	
18:20 – 18:40	Helena Webster	O-1C.5
	Topic C. Overview of the MAST Upgrade Electron Bernstein Wave System	

SOCIAL EVENT (19:00 – 21:00)

19:00 – 21:00	Welcome Reception Symposium Venue – Terrace
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TUESDAY, 20 SEPTEMBER 2022**PLENARY SESSION (09:00 – 11:00)****Elafiti Conference Hall**

09:00 – 09:40	Carlos Alejaldre Progress and Challenges on the Path to ITER Construction	IP-2.1
09:40 – 10:20	Tony Donn� Navigating Along the Fusion Roadmap	IP-2.2
10:20 – 11:00	Francesco Romanelli Progress in the Design and Realization of the DTT Program	IP-2.3
11:00 – 11:30	Coffee Break	

ORAL SESSIONS (11:30 – 13:00; 17:00 – 18:40)**Elafiti Hall 2 – Oral Session 2A**

11:30 – 12:00	Richard Kembleton Topic K. Technological Features of a Commercial Fusion Power Plant, and the Gap from DEMO	IT-2A.1
12:00 – 12:20	Isabel Lopez Topic K. Uncertainty Propagation Scheme for Two-Steps MC Computational Simulations Dedicated to Dose Calculation	O-2A.1
12:20 – 12:40	Bethany Colling Topic K. Working Towards a Proportionate Regulatory Framework for Fusion Power Plants	O-2A.2
12:40 – 13:00	Mirjana Damjanovic Topic K. Study of Industrial-Scale Stainless Steel Detritiation via Thermal Treatment	O-2A.3
13:00 – 14:30	Lunch Break	
14:30 – 17:00	Poster Session II (Tajan and Olipa Halls) Virtual Poster Session II (Fourwaves)	
16:30 – 17:00	Coffee Break at Poster Session	
17:00 – 17:30	Nicholas Terranova Topic K. Activated Corrosion Products Assessment and Minimization Strategies Investigated in the EUROfusion Safety Research Program	IT-2A.2
17:30 – 18:00	Francisco Martin-Fuertes Topic K. Implementation of Safety Aspects in IFMIF-DONES Design	IT-2A.3

18:00 – 18:20	Chiara Bustreo	O-2A.4
	Topic K. The Integration of Fusion Power in Future Decarbonized Power Systems	
18:20 – 18:40	Abeer Abdalla	O-2A.5
	Topic K. Technology Transfer at UKAEA: Ten New Pilot Programme	


Elafiti Hall 1 – Oral Session 2B

11:30 – 12:00	Valentina Corato	IT-2B.1
	Topic F. Progress in the Development of Technological Solutions for EU-DEMO Magnets	
12:00 – 12:20	Sylvain Girard	O-2B.1
	Topic F. SELFIE: ITER Superconducting Joint Test Facility	
12:20 – 12:40	Filippo Carovani	O-2B.2
	Topic F. Development, Design and Installation of Multichannel Transfer Lines at W7-X Under Extreme Geometrical Constraints	
12:40 – 13:00	Jinggang Qin	O-2B.3
	Topic F. The Research Status of HTS CICC for Future Fusion Reactor	
13:00 – 14:30	Lunch Break	
14:30 – 17:00	Poster Session II (Tajan and Olipa Halls) Virtual Poster Session II (Fourwaves)	
16:30 – 17:00	Coffee Break at Poster Session	
17:00 – 17:30	Z. S. Hartwig	IT-2B.2
	Topic F. Overview of the SPARC Toroidal Field Model Coil Project	
17:30 – 18:00	Klaus-Peter Weiss	IT-2B.3
	Topic F. Structural Material Challenges for Fusion Magnets	
18:00 – 18:20	Alberto Fraile	O-2B.4
	Topic G. Hypervelocity Impacts on Plasma Facing Materials through Molecular Dynamics Simulations	
18:20 – 18:40	Pietro Zito	O-2B.5
	Topic F. Final Design of the DTT Toroidal Power Supply Circuit	

Elafiti Hall 3 – Oral Session 2C

11:30 – 12:00	Simone Peruzzo	IT-2C.1
	Topic H. The New Vessel Complex for the RFX-mod2 Experiment: An Effective Synergy Between Fusion Research and Technological Development	
12:00 – 12:20	Stephane Gazzotti	O-2C.1
	Topic H. eXtended Reality Lab: Verification and Validation by Simulation for Test Blanket Modules Replacement Operations in Air-Fed Suits	
12:20 – 12:40	Helena Livesey	O-2C.2
	Topic H. Remote Service Joining Challenges and Developments for Use Inside Fusion Devices	
12:40 – 13:00	Christian Bachmann	O-2C.3
	Topic H. Progress in the Development of the In-Vessel Transporter and the Upper Port Cask for the Remote Replacement of the DEMO Breeding Blanket	
13:00 – 14:30	Lunch Break	
14:30 – 17:00	Poster Session II (Tajan and Olip Halls) Virtual Poster Session II (Fourwaves)	
16:30 – 17:00	Coffee Break at Poster Session	
17:00 – 17:30	Gioacchino Micciché	IT-2C.2
	Topic H. Remote Handling Maintenance in IFMIF-DONES: Status and Future Developments	
17:30 – 18:00	Jean-Pierre Friconneau	IT-2C.3
	Topic H. ITER Test Blanket Module – ALARA Investigations for Port Cell Pipe Forest Replacement	
18:00 – 18:20	Mauro Dalla Palma	O-2C.4
	Topic H. Design of DTT Vacuum Vessel and Interfaced Mechanical Systems	
18:20 – 18:40	Petr Vondráček	O-2C.5
	Topic H. Design Optimization, Material Selection and Manufacturing Requirements of the Support Structure of the COMPASS Upgrade Tokamak	

WEDNESDAY, 21 SEPTEMBER 2022**PLENARY SESSION (09:00 – 11:00)****Elafiti Conference Hall**

09:00 – 09:40	Jiangang Li Efforts for Fusion Energy Development by Superconducting Tokamak Approach in China	IP-3.1
09:40 – 10:20	P. Cara IFMIF-DONES: Current Design Status of the Facility and its Accelerator Driver	IP-3.2
10:20 – 11:00	Sonjong Wang Technical Aspect of Steady-State Operation with High Temperature Plasma in KSTAR	IP-3.3
11:00 – 11:30	Coffee Break	

ORAL SESSIONS (11:30 – 13:10)**Elafiti Hall 1 – Oral Session 3A**

11:30 – 12:00	Marc Missirlian Topic G. Manufacturing, Testing and Installation of the Full Tungsten Actively Cooled ITER-Like Divertor for WEST Tokamak	IT-3A.1
12:00 – 12:30	Yiran Mao Topic G. Plasma-Facing Components Based on Advanced Tungsten Composites: Production and Mock-up Tests	IT-3A.2
12:30 – 12:50	Alan Durif Topic G. Edge Cracking of Tungsten Actively Cooled Plasma Facing Components After Plasma Operation (Visual Observation Versus Numerical Assessment)	O-3A.1
12:50 – 13:10	Pierre Reilhac Topic G. Surface Modification Analysis of the Unshaped Actively Cooled ITER-Like Plasma Facing Units After Plasma Exposure in WEST Phase I	O-3A.2
13:10 – 14:30	Lunch Break	

Elafiti Hall 2 – Oral Session 3B

11:30 – 12:00	Claudio Torregrosa Martin Topic E. Diagnostics Overview of IFMIF-DONES: Requirements and Techniques	IT-3B.1
12:00 – 12:30	Raul Luís Topic E. A Diagnostics Slim Cassette Concept for Reflectometry Measurements in DEMO	IT-3B.2
12:30 – 12:50	Duccio Testa Topic E. Development of Algorithms for the End-End System Simulation and Performance Analysis for a High-Frequency Magnetic Diagnostic System: Application to TCV, JET, ITER and DEMO	O-3B.1
12:50 – 13:10	Sina Jahanbakhsh Topic E. Calibration and Evaluation of Prototype Bolometer Sensors for ITER	O-3B.2
13:10 – 14:30	Lunch Break	


Elafiti Hall 3 – Oral Session 3C

11:30 – 12:00	Marica Eboli Topic I. PbLi/Water Reaction: Experimental Campaign and Modelling Advancements in WPBB EUROfusion Project	IT-3C.1
12:00 – 12:30	Bradut-Eugen Ghidersa Topic I. Thermal-Hydraulic Experiments in Support of the Helium Cooled Pebble Bed Blanket Design within the EU-DEMO Project	IT-3C.2
12:30 – 12:50	Fernando Rueda Topic I. An Update on the Latest and Most Relevant Improvements Achieved in the European Helium-Cooled Ceramic Breeder TBM Design	O-3C.1
12:50 – 13:10	Walter T. Shmayda Topic I. SPARC's Exhaust Purification System	O-3C.2
13:10 – 14:30	Lunch Break	

SOCIAL EVENTS (15:00 – 20:30)

15:00 – 17:00	Dubrovnik Old Town Tour
19:30 – 20:30	Dubrovnik Symphonic Orchestra Concert Rector's Palace

THURSDAY, 22 SEPTEMBER 2022**PLENARY SESSION (09:00 – 11:00)****Elafiti Conference Hall**

09:00 – 09:40	Guinevere Shaw U.S. Fusion Energy Sciences Perspective	IP-4.1
09:40 – 10:20	Yoshitaka Ikeda Current Status of Fusion R&Ds on QST in Japan	IP-4.2
10:20 – 11:00	C. Grisolia Outcomes of the TRANSAT (Transversal Actions for Tritium) EU Project	IP-4.3
11:00 – 11:30	Coffee Break	

ORAL SESSIONS (11:30 – 13:00; 14:30 – 16:00)**Elafiti Hall 1 – Oral Session 4A**

11:30 – 12:00	Thilo Grammes Topic G. Functionally Graded Tungsten/EUROFER Coating for DEMO First Wall: From Laboratory to Industrial Production	IT-4A.1
12:00 – 12:20	Jeong-Ha You Topic G. Divertor of the European DEMO: Conclusions from the Preconceptual Design Phase and Implications on the Power Exhaust Challenges	O-4A.1
12:20 – 12:40	Martin Muscat Topic G. Creep Fatigue Analysis of DEMO Divertor Components Following the RCC-MRx Design Code	O-4A.2
12:40 – 13:00	Daniel Dorow-Gerspach Topic G. Progress in the Realization of Advanced Armour Designs for Plasma-Facing Components	O-4A.3
13:00 – 14:30	Lunch Break	
14:30 – 15:00	Eider Oyarzabal Topic G. Commissioning and First Results from the OLMAT Facility	IT-4A.2
15:00 – 15:20	Wolfgang Pantleon Topic G. Thermal Stability of Differently Rolled Pure Tungsten Plates in the Temperature Range from 1125 °C to 1250 °C	O-4A.4
15:20 – 15:40	Rhydian Lewis	O-4A.5

	Topic G. Machine Learning Guided Optimisation of Sensor Placement for HIVE Experimental Facility	
15:40 – 16:00	Jonathan Gerardin	O-4A.6
	Topic G. Front Face Shaping of the Inner Wall Tiles in the COMPASS Upgrade Tokamak	
16:30 – 17:00	Coffee Break at Poster Session	
16:30 – 19:00	Poster Session III (Tajan and Olipa Halls) Virtual Poster Session III (Fourwaves)	



Elafiti Hall 2 – Oral Session 4B

11:30 – 12:00	Alberto Maistrello	IT-4B.1
	Topic F. Overview on Electrical Issues Faced During the SPIDER Experimental Campaigns	
12:00 – 12:20	Qian Jiang	O-4B.1
	Topic F. Design and Analysis of a Pulsed Coil Power Supply for the DIII-D Tokamak	
12:20 – 12:40	Nikolay Bykovskiy	O-4B.2
	Topic F. Performance of the ReBCO ASTRA Conductor Prototypes for DEMO CS	
12:40 – 13:00	Donny Cosic	O-4B.3
	Topic E. Charge Collection Efficiency of scCVD Diamond Detectors at Low Temperatures	
13:00 – 14:30	Lunch Break	
14:30 – 15:00	Koji Takahashi	IT-4B.2
	Topic B. Current Status of JT-60SA Toward Restart of Integrated Commissioning and Machine Enhancement	
15:00 – 15:20	Guglielmo Giambartolomei	O-4B.4
	Topic B. Dynamic Loads Produced by Steam Condensation at Sub-Atmospheric Pressure	
15:20 – 15:40	Takumi Chikada	O-4B.5
	Topic J. Corrosion Behavior of Tritium Permeation Barrier Coatings in Flowing Li-Pb	
15:40 – 16:00	Jae-Hwan Kim	O-4B.6
	Topic J. An Innovative Recycling Process of Breeding Functional Materials for Fusion Application	
16:30 – 17:00	Coffee Break at Poster Session	
16:30 – 19:00	Poster Session III (Tajan and Olipa Halls) Virtual Poster Session III (Fourwaves)	

Elafiti Hall 3 – Oral Session 4C

11:30 – 12:00	Francisco A. Hernández	IT-4C.1
	Topic I. Advancements in the Design of the DEMO Driver Blanket System During the EU DEMO Pre-Conceptual Design Phase: Overview, Challenges and Opportunities	
12:00 – 12:20	Alessia Santucci	O-4C.1
	Topic I. Impact of DEMO Nuclear Buildings Air Ventilation System on the Exhaust Detritiation System	
12:20 – 12:40	Ranieri Marinari	O-4C.2
	Topic I. Design of a Test Section for the Experimental Investigation of the WCLL Manifold Hydraulic Features	
12:40 – 13:00	Stefan Jachmich	O-4C.3
	Topic D. Advances in Shattered Pellet Injection Technology for the ITER Disruption Mitigation System	
13:00 – 14:30	Lunch Break	
14:30 – 15:00	Ramil Gaisin	IT-4C.2
	Topic I. Beryllide Blocks as Neutron Multiplier in the New HCPB Blanket Design	
15:00 – 15:20	Oliver Leys	O-4C.4
	Topic I. Enhanced KALOS Production Process for ACB Pebbles	
15:20 – 15:40	Sara Perez-Martin	O-4C.5
	Topic A. R&D Needs for the Design of the EU-DEMO HCPB ICD Balance of Plant in FP9	
15:40 – 16:00	Mu-Young Ahn	O-4C.6
	Topic I. Hydrogen Adsorption and Desorption Performance of a Large-Scale Cryogenic Molecular Sieve Bed for Blanket Tritium Extraction Circuit	
16:30 – 17:00	Coffee Break at Poster Session	
16:30 – 19:00	Poster Session III (Tajan and Olipa Halls) Virtual Poster Session III (Fourwaves)	


SOCIAL EVENT (20:00 – 23:00)

20:00 – 23:00	Social Dinner Symposium Venue Elafiti Conference Hall
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FRIDAY, 23 SEPTEMBER 2022**ORAL SESSIONS (09:00 – 11:40)****Elafiti Hall 1 – Oral Session 5A**


09:00 – 09:30	Lorenzo Malerba	IT-5A.1
	Topic J. A Unified European Strategic Research Agenda for Nuclear Materials	
09:30 – 10:00	Teresa Hernandez	IT-5A.2
	Topic J. Compatibility Between Different Reduced Activation ODS-EUROFER Steels and PbLi for de WCLL Concept	
10:00 – 10:20	Nerea Ordas	O-5A.1
	Topic J. On the Feasibility to Obtain CuCrZr Alloys with Outstanding Thermal and Mechanical Properties by Additive Manufacturing	
10:20 – 10:40	Coffee Break	
10:40 – 11:00	Tim Graening	O-5A.2
	Topic J. Castable Nanostructured Alloy Steels as Enhanced Reduced Activation Ferritic Martensitic Steel	
11:00 – 11:20	Toni Dunatov	O-5A.3
	Topic J. Development and Operation of the Dual-Beam Ion Irradiation Facility for Fusion Materials (DiFU) at RBI, Zagreb	
11:20 – 11:40	Arunodaya Bhattacharya	O-5A.4
	Topic J. Irradiation Behavior of Eurofer97 Steels - An ORNL-EUROfusion Collaboration	
11:40 – 13:00	Lunch Break	

Elafiti Hall 2 – Oral Session 5B

09:00 – 09:20	Alex Puig Sitjes	O-5B.1
	Topic D. Thermal Loads Protection of Wendelstein 7-X Divertors with Real-Time Infrared Imaging	
09:20 – 09:40	Piotr Perek	O-5B.2
	Topic D. Evaluation of ITER Real-Time Framework in Plasma Diagnostics Applications	
09:40 – 10:00	Federico Felici	O-5B.3
	Topic D. Engineering and Research Challenges in Enabling Deep Reinforcement Learning for Magnetic Confinement Control	
10:00 – 10:20	Coffee Break	
10:20 – 10:40	Dimitris Papadakis	O-5B.4

	Topic G. Defect Evolution of Neutron Irradiated ITER Grade Tungsten After Annealing	
10:40 – 11:00	Laura Dittrich	O-5B.5
	Topic G. Retention of Noble and Seeded Gases in First Wall Components – Experience from the JET Tokamak with the ITER-Like Wall	
11:00 – 11:20	Selanna Roccella	O-5B.6
	Topic G. Design of the First Divertor in the DTT Facility	
11:30 – 13:00	Lunch Break	

Elafiti Hall 3 – Oral Session 5C

09:00 – 09:20	Valentina Nikolaeva	O-5C.1
	Topic E. REFI: The Synthetic Reflectometry Diagnostic for ITER	
09:20 – 09:40	Isabella Mario	O-5C.2
	Topic E. Beam Uniformity Studies Based on Neutrons Measured with a Scintillator Array at SPIDER with Cs Injection	
09:40 – 10:00	Takeo Nishitani	O-5C.3
	Topic E. Neutronics Simulation of Neutron Calibrations for ITER in-vessel Neutron Diagnostics by Using Simplified ITER Model	
10:00 – 10:20	Coffee Break	
		
10:20 – 10:40	Yann Anquetin	O-5C.4
	Topic E. Surface Heat Flux Estimation with Embedded Thermocouples and Fiber Bragg Grating Sensor in ITER-like Plasma Facing Components	
10:40 – 11:00	Nicola Fonesu	O-5C.5
	Topic E. Shutdown Dose Rate Experiment at JET During DTE2	
11:00 – 11:20	Theodora Vasilopoulou	O-5C.6
	Topic E. Activation Foil Measurements at JET Tritium-Tritium Operations in Support of Neutron Streaming and Shutdown Dose Rate Experiments	
11:30 – 13:00	Lunch Break	

PLENARY SESSION AND CLOSING CEREMONY (13:00 – 15:30)**Elafiti Conference Hall**

13:00 – 13:40	R. Villari Neutronics, Nuclear Waste and Safety Activities within EUROfusion in Support of Preparation of ITER Operations	IP-5.1
13:40 – 14:20	D. Marcuzzi Lessons Learned After Three Years of SPIDER Operation and the First MITICA Integrated Tests	IP-5.2
14:20 – 15:00	Joe Milnes JET Tritium and D-T campaigns in 2021 – Key Results, Achievements and Lessons Learned	IP-5.3
15:00 – 15:30	Closing Ceremony	

POSTER SESSIONS

Monday, 19 September 2022, 14:30 – 17:00

Virtual Poster Session I (Fourwaves)

P-1.1	Emilio Acampora	Magnetic control of DTT plasma configurations
P-1.2	Antonio Iaiunese	Three-dimensional Evaluation of the Connection Lengths in a Tokamak
P-1.3	Francesca Giovanna Lanzotti	Systems Engineering procedure for requirements management of divertor system of tokamak reactors
P-1.4	Andrea Zappatore	Thermal-hydraulic analysis of the DTT Central Solenoid in normal and off-normal operation
P-1.7	Gherardo Romanelli	Estimation of the error field due to winding manufacturing and assembly tolerances of the DTT superconducting magnet system
P-1.8	Roberto Ambrosino	In-Vessel Components for Plasma Position Control in DTT
P-1.10	Pasquale Zumbolo	Error Field and Correction Coils in DTT: a preliminary analysis
P-1.12	Marco Fulici	Thermo-structural coupled analyses and verifications of the DTT Vacuum Vessel
P-1.15	Giuseppe Ramogida	Plasma disruptions simulation and EM loads evaluation in the design of DTT
P-1.17	Alessandro Lampasi	Benefits of high-energy varistors in breakdown and fast discharge units
P-1.23	Giuseppe Di Gironimo	Architecture of the DTT Configuration Management Platform
P-1.24	Stanislao Grazioso	Systems Engineering Approach for the Iterative Concept Design and Virtual Simulations of the DTT Hyper Redundant Manipulator
P-1.26	Sara Buonocore	Preliminary architecture of the DTT Remote Handling Test and Training Facility
P-1.27	Francesco Giorgetti	Preliminary Design and Thermo Structural Analyses of the DTT Divertor
P-1.28	Giacomo Dose	Conceptual design of the main First Wall of the Divertor Tokamak Test facility
P-1.29	Gabriele De Sano	Qualification activities of a tungsten-steel actively cooled outboard module for the First Wall of DTT
P-1.31	Morena Angelucci	Hydraulic Analysis of the DTT Divertor module
P-1.33	Daniele Busi	Study of magnetic effects on DTT ECRH front-steering mirror
P-1.34	Francesco Fanale	Progress on the conceptual design of the antennas for the DTT ECRH system
P-1.36	Alessandro Bruschi	Conceptual Design of the DTT ECRH Quasi-Optical Transmission Line
P-1.37	Gian Luca Ravera	Operational requirements of the Ion Cyclotron Wall Conditioning in DTT
P-1.38	Francesco Mirizzi	Preliminary analyses of the ICRF launcher for DTT
P-1.44	Roberto Bonifetto	Thermal-hydraulic and mechanical analysis of the Beam Line Components for the DTT Neutral Beam Injector
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P-2.163 Rahul Rayaprolu	Diagnostic and status update on the nuclear linear plasma device JULE-PSI
P-2.164 Samo Gerksic	Fast Fixed-Point FPGA Model Predictive Control for Tokamak Plasma Current and Shape Control
P-2.165 Brendan Crowley	An RF Ion Source for DIII-D Neutral Beams
P-2.166 Simone Carusotti	Structural behaviour characterization of ST40 Inner Vacuum Chamber (IVC2) during a plasma VDE using ANSYS Workbench
P-2.167 Mattia Scarpari	Population of a Preliminary ST40 Disruptions Database for VDE Electromagnetic Predictive Studies
P-2.168 James Pittard	Polycrystalline Diamond Exposed to Deuterium Plasma
P-2.169 Davide Flammini	Neutronic analyses for Standard Modular Equatorial Diagnostic Port Plug in ITER
P-2.170 Lorenzo Giannini	A combined algorithm for the design of HTS toroidal and poloidal magnet systems with a view to DEMO
P-2.172 Jacob Schwartz	FAROES: an open-source code for optimization of fusion systems
P-2.173 Zhongwei Wang	Structural Analysis of the ITER Upper Port Mounted Bolometer Camera
P-2.174 Camila López Pérez	Liquid Lithium Dropper System to Investigate Liquid Lithium Wettability of Porous Tungsten Plasma Facing Components
P-2.176 Stephen Dixon	Multiphysics simulation and analysis of a divertor cassette
P-2.177 Thanasis Basdanis	Gas adsorption modeling of helium at very low temperatures considering quantum effects
P-2.178 Agnieszka Hudoba	Equilibrium and divertor optimisation in spherical tokamak reactors
P-2.184 Peter Cooper	Development & validation of ductility exhaustion criterion for DEMO in-vessel components
P-2.185 Anurag Saigiridhari	Summary of a Parametric Blanket Geometry Tool Layout (Parablank) and its Application within the Design Process
P-2.186 Riccardo Ragona	Fast Diagnostic Systems on NORTH
P-2.188 Pierluigi Mollicone	Preliminary structural design verification of the DEMO breeding blanket transporter and transfer cask
P-2.189 Anicha Reuban	Study of the Oxidation Resistance of SMART Materials via Nanoscale Analysis
P-2.192 Kwangpyo Kim	Progress in the optimization of wall conditioning techniques for the reliable operation of KSTAR plasmas
P-2.193 SooHwan Park	Characteristic Test of Dual Shattered Pellet Injection Systems of KSTAR
P-2.194 Hikaru Fujiwara	Heavy-ion irradiation effects on electrical properties and hydrogen isotope permeation behavior of ceramic coatings
P-2.195 Jari Varje	Alpha particle losses in high-field spherical tokamaks from ST40 to power reactors
P-2.197 Thomas Fuerst	Membrane material development for fuel cycle applications
P-2.198 Hiroshi Tojo	A new concept for polarimetric Thomson scattering diagnostics
P-2.200 Masamichi Murayama	Experimental verification of the electrostatic shield design for 1 MeV negative ion accelerator in ITER HNB

P-2.201 Takuya Iwamoto	Comparative study of volumetric NDT methods for ITER blanket cooling pipe remote handling
P-2.202 Seonghee Hong	Neutronics analysis for conceptual design of target system based on a deuteron accelerator-driven fusion neutron source
P-2.203 Trevor Marchhart	Design of an Integrated Lithium Soaking Chamber for Testing the Thermo-hydrodynamics of Architected Tungsten Substrates
P-2.204 Akito Ipponsugi	Tritium Release Behavior from Neutron-Irradiated Li ₂ TiO ₃ with 20wt% Li ₂ ZrO ₃ Pebbles under Different Atmosphere
P-2.206 Hyunjung Lee	Assessment of hysteresis loss for KSTAR superconducting magnet during AC losses measurement
P-2.207 Koyo Munechika	Development of 3-D tomography with infrared imaging video bolometer to elucidate the mechanism of the radiative collapse
P-2.210 Francesca Papa	Manufacturing, installation and preliminary testing of POSEIDON, a Permeator Against Vacuum mock-up with niobium membrane
P-2.211 Tétény Baross	Numerical modelling of the contact electrical resistance and bonded area of the diffusion bonding tests on Gleeble 3800 comparing with the theoretical diffusion model by Hill and Wallach
P-2.212 Pavel Vladimirov	Hydrogen trapping in intermetallic beryllium alloys
P-2.213 Marco De Angeli	Wall cratering upon high velocity dust impact
P-2.219 Junsung Chang	Construction of Hot Helium Leak Test Facility for the ITER Blanket Shield Block and Status on Hot Helium Leak Test
P-2.221 Shoichi Hatakeyama	Study for high reliable 1MV high voltage power supply of the ITER HNB
P-2.222 Daniel Dunai	First results of a mock-up of a conceptual optical pellet diagnostic for Shattered Pellet Injectors of the ITER DMS
P-2.223 Rémy Nouailletas	WEST plasma control system status
P-2.224 Sarah Bickerton	Operational and Engineering experiences of Gas injection to JET for TT and DT operational campaigns
P-2.225 Aljaž Iveković	Additive manufacturing of W-Cu composites for divertor application
P-2.229 HeeJin Shim	Comparison Study on the Derivation of In-Structure FRS during Seismic Events for Application of ITER Upper Port 18
P-2.230 Takumi Matsuo	Gas composition change during operation of a compact discharge fusion neutron source with a closed deuterium supply system
P-2.232 Robin Größle	Simulation based systematic error budget for the measurement of the Sieverts-constant for PbLi
P-2.233 Simona Breidokaite	DPA and helium production assessment in EU DEMO HCPB divertor
P-2.234 Jaegon Lee	Density Pumped-out in KSTAR Double Null Transition Discharge
P-2.235 Teppei Otsuka	Hydrogen isotopes permeation through liquid tin supported by a nickel substrate
P-2.236 Théo Verdier	A novel fast digitizer setup for microwave measurements of ion dynamics and plasma-wave interaction
P-2.237 Jürgen Wendel	Tritium Laboratory Karlsruhe – Technically matured from basic technology to advanced experiments and analytics
P-2.238 Amelia Billings	INVESTIGATING THE MECHANICAL PROPERTIES OF CU CRZR AND CU USING IN-SITU 3D X-RAY COMPUTED TOMOGRAPHY AND DIFFRACTION
P-2.239 Alvaro Rodríguez López	Exploring CuCrFeVMoTi system for high heat flux applications

P-2.240 Tay Sparks	In-situ Synchrotron investigation of the mechanical properties of oxide dispersion strengthened Eurofer97 at elevated temperatures
P-2.241 Zdeněk Veselý	High heat flux testing method of plasma facing component materials
P-2.242 James Hargreaves	Modelling the effects of DEMO Plasma Transients on Eurofer 97's Microstructure
P-2.243 Tomáš Kubásek	High Heat Flux testing of Full-Scale Prototypes at HECZA facility
P-2.244 Thomas Jensen	Feedback Regulated Toroidal and Solenoidal Field Coil Discharges at the NORTH Tokamak
P-2.245 Soma Olasz	Feasibility of the EDICAM camera for runaway electron detection in JT-60SA disruptions
P-2.247 Tristan Calvet	Impact of brazing residual stresses and defects in tungsten-Eurofer97 dissimilar joints for nuclear fusion
P-2.248 Jie Chen	Studies of self-passivating SMART alloys with reduced brittleness
P-2.250 Francesca Cau	Analysis and Design of the Actively Cooled JT-60 SA Divertor
P-2.251 Himank Anand	Modelling, design and simulation of plasma magnetic control for the Spherical Tokamak for Energy Production (STEP)
P-2.252 Mikhail Gryaznevich	Wall conditioning, boronisation and dust in ST40
P-2.253 George Ana	Progress in the development of the HCPB TER architecture
P-2.255 Diana Knyzhnykova	Melt infiltrated tungsten–copper composites as advanced heat sink materials for divertor application
P-2.256 Gheorghe Bulubasa	HCPB TER components performance validation
P-2.257 Jo Sharp	Helium ion analogue irradiations to match the HIDOBE beryllium and beryllide study – initial results
P-2.258 Carli Smith	X-ray Fluorescence for in-situ surface characterization of plasma-facing components
P-2.260 Mirela Draghia	Tritium Extraction and Recovery system (TER) for the Helium Cooled Pebble Beds with steam in the helium purge gas
P-2.262 Max Rigby-Bell	Radiation tolerance of silicon carbide fibre / silicon carbide matrix composites for breeder blanket applications
P-2.263 Fabio Moro	Nuclear design of a shielded cabinet for electronics: the ITER Radial Neutron Camera case study
P-2.265 Alina Elena Niculescu	TCAP Integration in the Tritium Infrastructure of the Tritium Laboratory from ICSI RM. Valcea
P-2.266 Gheorghe Popescu	Semi-quantitative determination of a tritium removal facility characteristic risk
P-2.267 Yasuyuki Ogino	Evaluation of gamma-ray dose distribution in toroidal direction of LHD vacuum vessel from radionuclides generated in deuterium plasma experiment
P-2.270 Jean Manzagol	Simulation and developments for large pellet formation and acceleration for shattered pellet injection of the ITER DMS
P-2.271 Andrea Stinchelli	Amorphous ceramic coatings as an enabling technology for DEMO breeding blanket
P-2.273 Jana Brotankova	Resonance cavity as an education tool in PlasmaLab@CTU
P-2.274 Chase Hargrove	High Heat Flux Exposure of Dispersion-Strengthened Tungsten Alloys as Fusion Plasma-Facing Materials
P-2.275 Sara Abbasi	Novel installation of fast cameras at tokamak GOLEM

P-2.278	Anete Stine Teimane	Tritium retention in plasma facing materials of JET ITER-Like-Wall campaigns and factors influencing it
P-2.280	Moisés Oñoro	CRYSTALLOGRAPHIC EVOLUTION OF AN ODS FERRITIC STEEL AFTER THERMAL AGING
P-2.281	Mykyta Varavin	Development status of sub-mm unambiguous interferometer for COMPASS-Upgrade
P-2.282	Elina Pajuste	Graphene-based electrochemical pumping for tritium separation
P-2.283	Rudolfs Janis Zabolockis	Humidity Effects on Neutron Irradiated Beryllium
P-2.284	Laura Laguardia	Preliminary gas desorption studies from tungsten exposed to He plasma in GyM linear device using Laser Induced Desorption Spectroscopy
P-2.285	Carsten Bonnekoh	Characterization of ODS-Cu alloys produced by mechanical alloying
P-2.287	Domenico Marzullo	DEMO divertor design adapted to the PWR cooling condition for the EUROFER97 components
P-2.289	James Holden	Design and Analysis of MAST-U Electron Bernstein Wave Launcher
P-2.290	Satoshi Konishi	Fusion Plant Mockup for energy conversion and fuel cycle -A new approach for fusion commercialization-
P-2.291	Fu Nomoto	Electrochemical transport of Bi in Li–Pb eutectic alloy to liquid Pb electrode using chloride molten salt
P-2.293	Brian Leard	Fast Model-Based Scenario Optimization in NSTX-U Enabled by Analytic Gradient Computation
P-2.294	Igor Lengar	Material activation due to water irradiation in simple tokamak model
P-2.296	Sai Tej Paruchuri	Model Predictive Current Profile Control in Tokamaks by Exploiting Spatially Moving Electron Cyclotron Current Drives
P-2.298	Gergo Pokol	Outcome of the IAEA neutral beam penetration and photoemission benchmark
P-2.303	Sa-Woong Kim	A Parametric Study of Low Friction Coating on the Spirallock Female Thread for Application of ITER Blanket Central Bolt Inserts
P-2.304	Musab Al-Ajaleen	Ionization and electron capture processes induced in collisions between Li ⁺ and He(1s) and N(2p) atoms
P-2.305	Karla Ivanković	A neutron counter based on a patterned-electrodes sCVD detector
P-2.307	Elena Tejado	Thermomechanical Characterization of Laser Powder Bed Fusion W for heat sink fusion applications
P-2.308	R. Delaporte-Mathurin	On the modelling of H-He interactions in W
P-2.309	Hugues Bajas	AC loss and electrical resistance on the RW3 diffusion-bonded joint
P-2.310	Kamil Sedlak	Exploring Design Options for the High-Field Stellarator Coils
P-2.311	A. Encheva	Manufacturing of the ITER In-Vessel Coils
P-2.312	Changyang Li	Alternative solutions for breeding blanket remote maintenance in DEMO fusion reactor
P-2.313	Guodong Qin	Variable-curvature elephant trunk robot in nuclear industry
P-2.314	Ming Li	Sensitivity Analysis of Manipulator Control for DEMO Remote Maintenance
P-2.315	Ruochen Yin	Adaptive Robotic Grasping in Fusion Application Environment
P-2.316	A. Z. Miniyazov	Degradation of the Structure and Properties of Tungsten Carbide Surface Layers under Plasma Effect

P-2.317	Zh. Zaurbekova	Reactor experiments on irradiation of two-phase lithium ceramics $\text{Li}_2\text{TiO}_3/\text{Li}_4\text{SiO}_4$ of various ratios
P-2.318	I. Kenzhina	Study of interaction of hydrogen isotopes with titanium beryllide ($\text{Be}12\text{Ti}$)
P-2.319	Matthew Maniscalco	Development of front-end optical components and plasma cleaning for the ITER VSRS diagnostic system
P-2.323	A. Lau	Development of tungsten fiber reinforced tungsten (Wf/W) using yarn based textile preforms
P-2.324	Peter Spaeh	Design progress of structural components of the EU DEMO EC equatorial launcher
P-2.326	F. Subba	The XD divertor configuration for the European DEMO Fusion Reactor
P-2.327	Victor Prost	Economically optimized design point of high-field stellarator power-plants and experimental devices
P-2.330	Zinnia Parker	Development of a Novel Technology for the Analysis of Hydrogen Isotopologues Using Raman Spectroscopy and Hollow Core Microstructured Optical Fibres

Tuesday, 20 September 2022, 14:30 – 17:00**Poster Session II (Tajan Hall)**

P-1.1	Emilio Acampora	Magnetic control of DTT plasma configurations
P-1.2	Antonio Iaiunese	Three-dimensional Evaluation of the Connection Lengths in a Tokamak
P-1.3	Francesca Giovanna Lanzotti	Systems Engineering procedure for requirements management of divertor system of tokamak reactors
P-1.4	Andrea Zappatore	Thermal-hydraulic analysis of the DTT Central Solenoid in normal and off-normal operation
P-1.7	Gherardo Romanelli	Estimation of the error field due to winding manufacturing and assembly tolerances of the DTT superconducting magnet system
P-1.8	Roberto Ambrosino	In-Vessel Components for Plasma Position Control in DTT
P-1.10	Pasquale Zumbolo	Error Field and Correction Coils in DTT: a preliminary analysis
P-1.12	Marco Fulici	Thermo-structural coupled analyses and verifications of the DTT Vacuum Vessel
P-1.15	Giuseppe Ramogida	Plasma disruptions simulation and EM loads evaluation in the design of DTT
P-1.17	Alessandro Lampasi	Benefits of high-energy varistors in breakdown and fast discharge units
P-1.23	Giuseppe Di Gironimo	Architecture of the DTT Configuration Management Platform
P-1.24	Stanislao Grazioso	Systems Engineering Approach for the Iterative Concept Design and Virtual Simulations of the DTT Hyper Redundant Manipulator
P-1.26	Sara Buonocore	Preliminary architecture of the DTT Remote Handling Test and Training Facility
P-1.27	Francesco Giorgetti	Preliminary Design and Thermo Structural Analyses of the DTT Divertor
P-1.28	Giacomo Dose	Conceptual design of the main First Wall of the Divertor Tokamak Test facility
P-1.29	Gabriele De Sano	Qualification activities of a tungsten-steel actively cooled outboard module for the First Wall of DTT
P-1.31	Morena Angelucci	Hydraulic Analysis of the DTT Divertor module
P-1.33	Daniele Busi	Study of magnetic effects on DTT ECRH front-steering mirror
P-1.34	Francesco Fanale	Progress on the conceptual design of the antennas for the DTT ECRH system
P-1.36	Alessandro Bruschi	Conceptual Design of the DTT ECRH Quasi-Optical Transmission Line
P-1.37	Gian Luca Ravera	Operational requirements of the Ion Cyclotron Wall Conditioning in DTT
P-1.38	Francesco Mirizzi	Preliminary analyses of the ICRF launcher for DTT
P-1.44	Roberto Bonifetto	Thermal-hydraulic and mechanical analysis of the Beam Line Components for the DTT Neutral Beam Injector
P-1.45	Valentina Candela	IMPLEMENTATION OF THE METAL ADDITIVE MANUFACTURING (MAM) TECHNOLOGY FOR THE PRODUCTION OF THE DTT NBI BEAMLINE PARTS
P-1.46	Giacomo Favero	DESIGN OF ADDITIVELY MANUFACTURED EXTRACTION GRID COOLING CHANNELS FOR THE DTT NEUTRAL BEAM INJECTOR

P-1.47	Marzia Caldora	Parametric analysis to identify the operating limits of the DTT electrical distribution system
P-1.48	Kornel Varga	Virtual Reality simulations for DONES maintenance and logistics
P-1.49	Elio Valenzuela	IFMIF-DONES Remote Handling Control System: experimental setup for OPC UA integration
P-1.50	Yuefeng Qiu	Potential use of IFMIF-DONES target back-plate as material sample
P-1.51	Tamás Dézsi	Evolution of the design of IFMIF-DONES Test Cell vacuum vessel
P-1.52	András Zsákai	Integrated design of the vacuum and safety barrier between the Lithium and Test Systems of IFMIF-DONES
P-1.53	Víctor Vázquez	Preliminary SDN introduction for TSN networks at critical infrastructures such as IFMIF-DONES
P-1.54	Carlos Megías	Utilization of Time-Sensitive Networking for the IFMIF-DONES communications
P-1.55	Chih-Cheng Chang	Equivalence of mini-flat and cylindrical tensile samples to extract true stress-strain characteristics of Eurofer97 in reference and irradiated state
P-1.56	Mauro Cappelli	Recent Advances of the IFMIF-DONES Central Instrumentation and Control Systems Engineering Design
P-1.57	Juan Jose Rueda Perez	RAMI analysis of DONES Lithium Systems updated to the last design modifications
P-1.58	Arkady Serikov	Radiation shielding analysis for the IFMIF-DONES secondary beam duct
P-1.60	Björn Brenneis	Long Range Optical Distance Sensors for Liquid Metal Free Surface Detection
P-1.62	Roman Zagorski	2D simulations of inductive RF heating in the drivers of the SPIDER device
P-1.64	Christoph von Sehren	Cooled in-vessel immersion tube for the Gas Puff Imaging (GPI) diagnostic on W7-X
P-1.67	Javier de Prado	Brazeability study of CuCrZr alloy produced by additive manufacturing to tungsten using different Cu-based filler
P-1.68	Samuel Ha	Integrated Simulation for the Pre-Conceptual Optioneering of the STEP Breeder Blanket Design
P-1.70	Bernhard Ploeckl	Testbed for the Pellet Launching System for JT-60SA
P-1.71	Peter Lang	Concept for a multi-purpose EU-DEMO pellet launching system
P-1.75	Riccardo De Luca	Pre-conceptual design of a PFC provided with a W lattice armor for first wall sacrificial limiter applications in the EU-DEMO fusion reactor
P-1.76	Janne Lyytinen	Development of the optical remote handling connector for ITER Divertor Operational Instrumentation
P-1.77	Tim Teichmann	Direct Simulation Monte Carlo of Mercury Driven Linear Diffusion Pumps for EU-DEMO Torus Exhaust Pumping
P-1.81	Michal Cihlář	Molten Salts Evaluation for Balance of a Fusion Power Plant's Intermediate Heat Transfer Loop

Poster Session II (Olipa Hall)

P-1.82	Byoung Yoon Kim	Overview of Recent ITER TBM Port Plug R&D Activities
P-1.83	Thomas Brown	Architectural development of an ST fusion device
P-1.84	Jan Willem Coenen	Large-scale tungsten fibre-reinforced tungsten and its mechanical properties
P-1.85	Andrei Goussarov	Recent achievements in R&D on Fiber Optics Current Sensor for ITER
P-1.89	Timo Ravensbergen	Model-based design and testing for the ITER Plasma Control System
P-1.94	Marianne Richou	Titanium and tantalum used as functional gradient interlayer to join W and Eurofer
P-1.95	Guensik Min	Fabrication and characterization of Y ₂ O ₃ -doped tungsten by spark plasma sintering
P-1.96	Carla Piccinni	Injection of Ar-doped pellets: towards a multifaceted plasma actuator
P-1.97	Miroslav Gleitz	Parametric Study of the Surface Geometry of the Heat Exchanger Working with Subcooled Boiling Flow
P-1.99	Antonio Magnanimo	Development of a MMC demonstrator for nuclear fusion devices power supplies
P-1.100	Őrs Asztalos	Feasibility of fluctuation BES measurements on JT-60SA
P-1.101	Boštjan Končar	Numerical analysis of boiling effects in cooling channels of W7-X divertor target element
P-1.102	Giil Kwon	Time series KSTAR PF superconducting coil temperature forecasting using perceiver autoregressive model
P-1.103	Annika Uihlein	Hydrogen Isotope Separation process development for the EU-DEMO Fuel Cycle
P-1.104	Andrea Quartararo	Thermofluid-Dynamic Assessment of the EU-DEMO Divertor Single-Circuit Cooling Option
P-1.105	Alejandro Vázquez Cortés	HERMESplus Experimental Campaigns with Nb and V as Membrane Materials
P-1.106	Markus Teschke	Varistor development for in-vessel magnetic field coils in nuclear fusion devices
P-1.108	Hans Meister	Bolometer sensor holder suitable for ITER-relevant conditions
P-1.109	Gowri Karajikar	How can effective dose to the public be minimised in the event of an accident at a fusion power plant?
P-1.110	Domonkos Nagy	Developments of W7-X alkali metal beam diagnostic observation system for OP2
P-1.111	Yannick Kathage	Hydrogen plasma simulation results and their experimental validation via optical emission spectroscopy
P-1.112	Oleksii Girka	New ASDEX Upgrade ICRF antenna vacuum feedthrough: optimization status
P-1.114	Vincenzo Narcisi	Water Distillation for DEMO WCLL BB Coolant Purification System
P-1.115	Davide Laghi	Status of JADE, an open-source software for nuclear data libraries V&V
P-1.116	Sara Dubbioso	A Deep Reinforcement Learning approach for Vertical Stabilization of tokamak plasmas
P-1.117	Henri Weisen	The neutron shielding project for the TCV tokamak
P-1.118	Andrey Ushakov	Plasma cleaning of front-end optical mirrors in ITER Edge Thomson Scattering diagnostic system using low-pressure 40.68-MHz discharge

P-1.119	Eva Belonohy	Operations Knowledge Management in the EUROfusion Operations Network
P-1.120	Gaetano Aiello	The double-disk diamond window as backup broadband window solution for the DEMO electron cyclotron system
P-1.123	Rémy Jacquier	A double-ended helicon source to symmetrize RAID plasma
P-1.124	Wen Wen	Heat Pipe-based DEMO Divertor Target concept: high heat flux performance evaluation
P-1.125	Nikos Pelekasis	NUMERICAL STUDY OF THE DYNAMIC RESPONSE OF A LIQUID METAL IN A PORE IN THE PRESENCE OF A MAGNETIC FIELD AND A HEAT LOAD
P-1.126	James Bland	Plasma Pressure Effect on Weakly Damped TAEs in Spherical Tokamaks
P-1.127	Simon Kirk	Linear friction welding of tungsten to steel
P-1.128	Bartłomiej Jabłoński	Implementation and Performance Evaluation of the Real-Time Algorithms for Wendelstein 7-X Divertor Protection System for OP2.1
P-1.129	Damiano Paoletti	Thermomechanical analysis of a PFC integrating W-lattice armour in response to different plasma scenarios predicted in the DEMO tokamak
P-1.130	Satya Prakash Saraswat	Progress towards the Validation of SIMMER III code model for Lead-lithium water chemical interaction
P-1.131	Chiara Stefanini	Parametric FE model for the thermal optimization of a Plasma Facing Component equipped with sacrificial lattice armors for First Wall limiter application in EU-DEMO fusion reactor
P-1.132	Erik Walcz	Development of a Shattered Pellet Injector Test Bench for the ITER DMS Support Laboratory
P-1.134	Felix Mackel	Final design and testing of ITER diagnostic pressure gauges
P-1.135	Silvia Palomba	Assessment of impurity production upon 14 MeV fusion neutron irradiation of natural and isotopic 100Mo samples
P-1.137	Go Matsunaga	External control of three-dimensional magnetic field applicable to DEMO
P-1.139	Marius Wirtz	Interaction of heat loads and seeding impurities with tungsten using different experimental methods
P-1.140	Alexander Feichtmayer	The GIRAFFE Experiment – Current Status and Future Developments for Material Testing under Fusion-Relevant Loads
P-1.142	Francisco Saenz	Lorentz Force Propulsion on Free-Surface Liquid Metal Channel Flow
P-1.144	Irena Ivanova-Stanik	Integrated core- SOL simulations for SPARC tokamak with the COREDIV code
P-1.145	Claus-Peter Käsemann	Introduction of an inventory tool for the utilities and diagnostics of ASDEX Upgrade
P-1.146	Alexander N. Karpushov	Upgrade of the neutral beam heating system on the TCV tokamak – second high energy neutral beam
P-1.147	Jacob Eldred	Remote maintenance system dynamic simulation – understanding model uncertainty and robust design of operation
P-1.149	Martina Molinari	Water chemistry impact on activated corrosion products assessment in tokamak reactors
P-1.150	Tommaso Glingler	Thermal-hydraulic optimization of a proposed EU-DEMO hydrogen passive removal system
P-1.151	Ugo Siravo	EMC and earthing concept of the ITER EC-system
P-1.153	Nils Arden	Commissioning and first operational experience with the new thyristor converter Group 7 of ASDEX Upgrade
P-1.154	Ivan Wyss	Development of a fast low-resolution inversion method for the detection and classification of anomalous radiation patterns and disruption prediction

P-1.155	Luca Spolladore	On the detection of MARFE with visible cameras for disruption prevention
P-1.156	Riccardo Rossi	Scaling of the mode n=1 slowing down detection in Tokamaks for disruption prediction and instability control
P-1.157	Matthias Peglau	High voltage power supply for steady state operation of the neutral beam test facility ELISE
P-1.158	J�r�mie Dubray	Optimization of the power deposition profile on a gyrotron collector
P-1.159	Quentin Gorit	CICC-STREAM Quasi 1-D Quench Model Applied to JT-60SA Toroidal Field Coil in Tokamak Conditions
P-1.160	Romain Babouche	Combined analytic and experimental approaches for CICC coupling losses prediction with COLISEUM model
P-1.161	Daniel Imre Refy	Instrumented Fast Valve for the ITER DMS Support Laboratory test bench
P-1.162	Thorsten Loewenhoff	Current status of experiments with pre-damaged tungsten divertor PFUs in WEST
P-1.163	Tamara Andreeva	Sensitivity analysis of magnetic mapping for the latest Wendelstein 7-X stellarator experimental campaign
P-1.164	Miklos Vecsei	Numerical analysis of turbulent gas expansion in the test bench of the ITER DMS Support Laboratory
P-1.166	Yan Wang	Concept of contamination control door for DEMO and proof of principle design
P-1.167	Nikola Jaksic	Electromagnetic Analysis of the ITER Port Bolometer Cameras
P-1.168	Guillermo Orozco	3D magnetic field measurements and improvements at the negative ion source BATMAN Upgrade
P-1.169	Tam�s Szabolics	Control System of the ITER DMS Support Laboratory
P-1.173	Shinnosuke Matsunaga	Analyses and measurements of the temperatures on the JT-60SA vacuum vessel ports
P-1.174	Jorge Segado-Fernandez	Analysis and Design of the Central Stack for the SMART Tokamak
P-1.175	Mark Fortuna	Evaluation of neutron dose rates at the TCV tokamak facility
P-1.179	Yifan Zhang	A versatile power supply system for the central solenoid of the QUEST spherical tokamak
P-1.182	Reuben Holmes	High-temperature bonding of chromium and F82H steel: interface microstructure and chemical composition
P-1.183	Mauricio Gago	Bubble formation in ITER-grade tungsten after exposure to stationary D/He plasma and ELM-like thermal shocks
P-1.184	G�bor Cseh	Integrating EDICAM into the MARTe framework
P-1.185	Nicol� Badodi	Status, features, and future development of the LIFUS5/Mod4 experimental facility design
P-1.187	Thomas Haertl	DEMO Vacuum Vessel Port Closure Plate Sealing activities
P-1.188	Vishnu Ganesh	High heat flux testing results of various W-FGM-steel joints
P-1.190	Eugenio Vallone	Development of a Thermal-hydraulic model of the EU-DEMO Water Cooled Lithium Lead Breeding Blanket Primary Heat Transport System
P-1.192	Francesca Maria Castrovinci	Thermal-hydraulic study of the Primary Heat Transport System of the DEMO Divertor Cassette Body
P-1.193	Simon McIntosh	Predictions of Toroidal Field Symmetry on ITER from first steps in the Assembly Process
P-1.194	Woongryol Lee	A case study of the Real-Time Framework for the implementation of the ITER plasma control system

P-1.195	Falk Kunkel	Manufacturing of a new Manipulator for the laser blow-off system for Wendelstein 7-X
P-1.196	Máté Szűcs	A deep learning-based method to detect hot-spots in the visible video diagnostics of Wendelstein 7-X
P-1.197	Andélka Kerekeš	Operational characterization of stellarator and tokamak type fusion power plants from an energy system perspective
P-1.198	Laurent Krier	Short-pulse Frequency Stabilization of a MW-class ECRH Gyrotron at W7-X for CTS Diagnostic
P-1.199	Matyáš Junek	Parametric study of helium/sCO ₂ printed circuit heat exchanger for the DEMO reactor
P-1.200	Arturs Zarins	High-energy ion induced defects and radiolysis products in advanced ceramic breeder pebbles
P-1.201	Vojtěch Smolík	High Heat Flux Cooling Technology
P-1.202	Guk Chol Jun	Verification of CFD model of micro-channel heat exchanger on experimental data
P-1.204	Maxime Lemetais	Recrystallization mean field model predicts the effects of tungsten initial microstructure on restoration kinetics at high temperature
P-1.205	Nicolas Mantel	Application of Component Mode Synthesis super element for DEMO divertor cassette
P-1.213	Azman Azka	Development of Mechanical Pipe Connection Design for DEMO
P-1.214	Julia M. Leys	Neutron irradiation programme for the EU reference ceramic tritium breeder material
P-1.215	Luis Maqueda	FEASIBILITY EVALUATION AND PRE-CONCEPTUAL DESIGN OF THE ITER TOKAMAK SYSTEMS MONITOR
P-1.216	Jan Syblík	Preliminary Design of sCO ₂ Axial Compressor for Fusion and Nuclear Power Plants
P-1.217	Ivan Alexander Kodeli	Nuclear Data Sensitivity/Uncertainty Analysis of FNG WCLL Fusion Benchmark
P-1.218	Stefano Sgobba	Failure analysis of a heavy gauge fastener of the ITER Toroidal Field Gravity Support system
P-1.220	Simone Noce	Neutronics analysis of the nuclear loads distributions on the DEMO divertor Low Activation Chromium PFC concept
P-1.221	Simone Siriano	Numerical analysis of extreme magnetoconvective phenomena in the WCLL blanket
P-1.223	Slavomir Entler	Antimony Hall sensors testing at DEMO relevant temperatures
P-1.224	Lorenzo Melchiorri	CFD analysis and optimization of the DEMO WCLL central outboard segment bottom-cap elementary cell
P-1.227	Kateryna Poleshchuk	Development of sub-miniaturised testing methodology for W/Cu joints extracted from the ITER-specification monoblock
P-1.229	Alex Aimetta	FORWARD MODELLING OF D-ALPHA CAMERA VIEW IN ST40 INFORMED BY EXPERIMENTAL DATA
P-1.230	Maria Lorena Richiusa	Advances in material phase change modelling approach for EU-DEMO limiter's plasma-facing components
P-1.231	Hans van Eck	LiMeS-lab: An integrated laboratory for the development of Liquid-Metal Shield technologies for fusion reactors
P-1.232	Ignacio Aviles Santillana	Advanced Ultrasonic Examination of Heavy-Gauge High Strength Studs for the ITER Toroidal Field Gravity Supports

P-1.235	Andrei Khodak	Virtual Prototyping of Liquid Metal Blanket Performance in Fusion Pilot Plant
P-1.236	Igor Sokolov	LOCAL THERMAL LOAD SIMULATION ON BERYLLIUM UNDER ITER OPERATING CONDITIONS
P-1.237	Florian Priester	A new facility for the measurement of the Sieverts-constant for PbLi with tritium
P-1.238	Sarka Fukova	Design of an evacuable labyrinth-like structure for arc prevention for the TF sliding joint of COMPASS Upgrade
P-1.239	Petr Barton	Design of COMPASS Upgrade support structure cryogenic cooling
P-1.242	Petra Jenus	Properties and prospects of bulk W ₂ C-reinforced W with DBTT at 200 °C
P-1.243	Vivian Yue Sze Lee	Design and development of functionally graded tungsten-copper interlayers for fusion divertor targets
P-1.244	Francesco Galleni	Development of a coupling technique between RELAP5 and SIMMER-IV for fusion reactor applications
P-1.245	Matteo D'Onorio	Development of a MELCOR thermal-hydraulic model for the EU-DEMO Tokamak building and LOCA simulation
P-1.246	Cyril Brun	ITER Central Solenoid Precompression test mock-up – Validation phase to prepare the assembly on site
P-1.247	James Dark	Modelling of tritium transport in breeding blankets: influence of neutron trap creation
P-1.248	Chase Taylor	The Tritium Extraction eXperiment (TEX): a forced convection fusion blanket PbLi loop
P-1.250	Manabu Takechi	Design and manufacturing of resistive wall mode control coil of JT-60SA
P-1.251	Nikolai Zimmer	New insights into the role of grain boundaries for tritium retention in high-dose neutron irradiated beryllium
P-1.252	Changwook Shin	Temperature swing method for vapor capture on zeolite 5A in coolant purification system
P-1.255	Jacob Ruhnau	Construction of cooled immersion tubes for divertor bolometry in Wendelstein 7-X
P-1.258	Ekaterina Matveeva	Performance analysis of plasma current and vessel currents diagnostics planned for COMPASS-U
P-1.259	Pietro Arena	Design and integration of the EU-DEMO Water-Cooled Lead Lithium Breeding Blanket
P-1.260	Seong-Heon Seo	The line integrated density measurement by using a frequency modulation refractometer
P-1.261	Ugo Bonavolontà	Eurofusion - DEMO Divertor – Cost Estimate
P-1.262	Pavel Pereslavitsev	Neutronic activity for development of the promising alternative water-cooled DEMO concepts
P-1.263	Léo Dubus	Implementation, enhancement and positioning performance of the Very High spatial Resolution IR thermography diagnostic in WEST Tokamak
P-1.265	Alessandro Del Nevo	THE DESIGN OF WATER LOOP FACILITY FOR SUPPORTING THE WATER COOLANT LITHIUM LEAD BREEDING BLANKET TECHNOLOGY AND SAFETY
P-1.266	André Torres	Data acquisition with real-time numerical integration for COMPASS-U magnetic diagnostics
P-1.267	Priti Kanth	Waste Expectations for Commercial Fusion Reactors
P-1.268	Adam Cooper	Design and commissioning of a tritium-capable low-energy plasma exposure device for hydrogen retention experiments

P-1.270	Michael Houry	The wide-angle infrared diagnostic and its digital twin for the 1st wall monitoring of the WEST tokamak
P-1.271	Tim-Oliver Hohmann	The new Python based data acquisition of the revised calorimetry on ASDEX Upgrade
P-1.273	Federico D'Isa	Design and characterization of the polychromators for JT-60SA Thomson scattering systems
P-1.290	Keisuke Mukai	One-step fabrication of ceramic breeder pebbles using pulse laser
P-1.291	Sören Möller	Thermal conductivity of irradiated materials studied by an effective medium damage progression model of the electronic conduction
P-1.294	Jeno Kadi	Multipurpose Ion Beam Analysis Chamber for Fusion Material Science Applications
P-1.297	Silvia Cesaroni	Conceptual design of CVD diamond tomography systems for fusion devices
P-1.347	Takumi Onchi	A circuit design toward doubling of toroidal magnetic field on the QUEST spherical tokamak
P-1.360	Taejeong An	Evaluation of fatigue crack growth characteristics on pure tungsten: Effect of recrystallization

Virtual Poster Session II (Fourwaves)

P-1.5	Giuseppe Messina	Frequency Response Analysis for a Toroidal Field Coil of the Divertor Tokamak Test Facility
P-1.6	Luigi Morici	Estimation of the Power Dissipation on the Casing of DTT Toroidal Field Coil during a Fast Plasma Disruption
P-1.9	Raffaele Albanese	Conceptual Design of In-Vessel Divertor Coils in DTT
P-1.11	Stefano Ciufo	Design of mechanical and thermal measurement system of DTT vacuum vessel
P-1.13	Antonio Cucchiario	Thermal-Hydraulic Analysis of Boron-Water and Nitrogen gas circuits of DTT Vacuum Vessel
P-1.14	Gianluca Barone	Thermal analysis of Vacuum Vessel and Ports in DTT
P-1.16	Giovanni Griva	Cascaded multilevel inverter for vertical stabilization and radial control power supplies
P-1.18	Sabino Pipolo	Overview of the DTT coil power supplies
P-1.19	Andrea Belpane	Conceptual design of a divertor visible spectroscopy diagnostic for DTT
P-1.21	Jimmy Scionti	Optimization studies for DTT neutron camera collimators
P-1.22	Massimiliano Lacquaniti	White noise characterization and thermo-mechanical analysis of DTT pick-up coils
P-1.25	Andrea Reale	Overview of the Remote Handling System for the DTT plant
P-1.30	Maurizio Furno Palumbo	Conceptual design and prototype manufacturing of the First Wall limiter of the Divertor Tokamak Test facility
P-1.32	Annunziata Satriano	Qualification activities of the DTT divertor
P-1.35	Luca Balbinot	Assessment of ECRH vacuum compatibility with DTT plasma operation

P-1.39	Giorgio Sebastiano Mauro	Numerical Design and Optimization of a three-strap antenna for DTT IC heating
P-1.40	Piero Agostinetti	Conceptual design of the Gas Injection and Vacuum System for DTT NBI
P-1.41	Pietro Vincenzi	Interaction of high-energy neutral beams with Divertor Tokamak Test plasma
P-1.42	Francesco Santoro	Studies on high voltage dc cable connection to supply the acceleration grids of the Neutral Beam Injector for DTT
P-1.43	Eugenio Benedetti	Conceptual Design and related R&D on the DTT Neutral Beam Injector insulating rings
P-1.59	Makoto Oyaidzu	Design of Lithium Purification Validation System for Fusion Neutron Source with the Test Plan
P-1.61	Siriyaporn Sangaroon	Feasibility study of neutral beam injection in Thailand Tokamak-1
P-1.63	Hiroyuki Noto	Effect of ball diameter on Mechanical Alloying Process for the Production of Dispersion Strengthened Tungsten
P-1.66	Sven Degenkolbe	Validation of the W7-X central safety system
P-1.69	Nicolò Marconato	Integration of new sets of magnets for improved plasma confinement in the SPIDER experiment
P-1.72	Chaoyi Shi	Comparison of Maximum Temperature Analysis Methods for Water-Cooled Busbar Connector with Contact Resistance
P-1.73	Shamma Al Mazrouei	Chromium-Tungsten Alloy Formed by Compression Plasma Flows for Plasma-Facing Component Material in Fusion Reactor
P-1.74	Tiago Pomella Lobo	A Time-Dependent Power Cycle developed for Multi-Timescale Systems Codes to study technology integration in advanced Fusion Power Plants
P-1.78	Jonas Caspar Schwenzer	EU-DEMO fuel cycle performance metrics and tritium self-sufficiency criteria
P-1.79	Kun Wang	China's Progress on Hot Helium Leak Test of ITER Shield Blocks
P-1.80	Gessica Cortese	Review of Wet Scrubber Columns technology and preliminary dimensioning for Exhaust Detritiation System in DEMO
P-1.86	Caterina Cavallini	Study, design and thermal-hydraulic simulations of Vacuum Enhancement Module shell cooling circuit
P-1.87	Jean Boscary	Conceptual design of the next generation of W7-X divertor W-target elements
P-1.88	Myungkyu Kim	LabVIEW Programming for the KSTAR XICS towards Real-Time Ion Temperature Measurement
P-1.90	Marco Barbisan	Characterization of cesium and H ⁻ /D ⁻ density in the negative ion source SPIDER
P-1.91	Fabio Veronese	Functional Optimization for a Beam Driven Plasma Neutralizer in DEMO Neutral Beam Injector
P-1.92	Bin Guo	The Design and Construction of Divertor Primary Heat Transfer System for EAST Tokamak
P-1.93	Basile Pouradier Duteil	First characterization of the SPIDER beam AC component with the Beamlet Current Monitor

P-1.98	Jordi Abella	BaCe _{0.6} Zr _{0.3} Y _{0.1} O _{3-α} electrochemical hydrogen sensor for fusion applications
P-1.107	Kazunari Katayama	Tritium release behavior from neutron-irradiated FLiNaK mixed with Ti powder
P-1.113	Riccardo Agnello	Measurement of stripping losses in the negative ion source SPIDER
P-1.121	Iole Palermo	Development of a HELIAS-type fusion reactor with Dual Coolant Lithium Lead Breeding Blanket: Status and prospects
P-1.122	Bernd Heinemann	Variable Grid Gap for a wider operational space of NBI-Heating at ASDEX Upgrade
P-1.133	Samad Khani	Modelling LOFA scenario for WCLL BB concept using MELCOR1.8.5 code
P-1.136	Mizuki Kako	The applicability of remote field eddy current testing to outer flaws on cooling tubes in the blanket of a fusion DEMO reactor
P-1.138	Masayuki Ohta	Study on A-FNS Shielding Analysis with Variance Reduction Parameter Generation Code
P-1.141	Seung-Ju Lee	Demonstration of ITER Real-Time Framework with Application of PF Coil Control in KSTAR
P-1.143	Rita S. Delogu	STRIKE beam characterization by means of machine learning techniques: application on experimental data
P-1.148	Daniele Ottaviano	Virtualization of accelerators in embedded systems for mixed-criticality: RPU exploitation for fusion diagnostics and control
P-1.152	Toyo Yamashita	Fabrication of W/RAFM steel joint with copper intermediate layer by using combined joint method
P-1.165	Leo Bühler	A simple MHD model for coupling poloidal manifolds to breeder units in liquid metal blankets
P-1.170	Hiroshi Idei	8.56-GHz quasi-optical launcher system with incident-mode controllability in the QUEST spherical tokamak
P-1.171	Lei Chen	Progress in the Design of the Supercritical CO ₂ Cooled Lithium-Lead Blanket for CFETR
P-1.172	Roberto Pasqualotto	Improvement of SPIDER diagnostic systems
P-1.176	Fumito Okino	Tritium transport velocity on a LiPb blanket loop
P-1.177	Noritaka Yusa	High frequency ultrasonic inspection of the bonded interface between a divertor monoblock and a cooling pipe
P-1.178	Hideaki Matsuura	Study on T production using high temperature gas cooled reactor for DEMO fusion reactor – Li-rod structure for initial irradiation test on HTTR –
P-1.180	Yinlong Xing	Multi field coupling simulation and structure design of RF cavity for complex boat shape 1/4 prototype
P-1.181	Xiuqing Zhang	ITER PF in Series AC/DC Converters Starting Mechanism Assisted by External Bypass
P-1.186	Tamas Szepesi	In-situ pellet growth and quality monitoring diagnostics for the ITER DMS Support Laboratory
P-1.189	Shiyong He	Control System of High-Voltage Pulse Power Supply for Compact Torus Injector based on EPICS

P-1.191	Valeria Candeloro	Design of a movable electrostatic diagnostic for the investigation of plasma properties in a large negative ion source
P-1.203	Margherita Ugoletti	Development of the tomographic reconstruction technique of SPIDER negative ion beam
P-1.206	Esther Rincon	Structural Analysis of the Ex-Port Plug Collective Thomson Scattering Transmission Lines for ITER
P-1.207	Naoki Tamura	Development of the Tracer-Encapsulated Solid Pellet Injection System for the JT-60SA
P-1.208	Ryohei Kubota	Prediction of heat transfer performance of helium gas flow in unidirectional porous tubes for divertor cooling
P-1.209	Kenji Morita	Effects of Applied Voltages on Lithium-6 Enrichment by Electrodialysis with Lithium Ionic Conductor
P-1.210	Noriyuki Unno	Experimental study of boiling heat transfer on CuCrZr for prediction of durability as heat sink material for plasma-facing components
P-1.211	Hitoshi Tamura	Evaluation of the combined stress state of components in the winding pack of a fusion magnet
P-1.219	Matteo Brombin	Custom thermocouple input module for sensors on the Grounded Grid of SPIDER
P-1.222	Enrico Aymerich	CNN disruption predictor at JET: early versus late data fusion approach
P-1.225	Elzbieta Fortuna-Zalesna	Erosion and redeposition pattern on the W7-X graphite test divertor unit tile
P-1.226	Gianluigi Serianni	SPIDER real-time data visualization tool
P-1.228	Takashi Nozawa	Determining the true stress and true strain curves of reduced-activation ferritic/martensitic steel using miniature tensile specimens
P-1.233	Emilio Blanco	Ex-Port Plug Collective Thomson Scattering Design Update in ITER
P-1.234	Vladimir Weinzettl	Status of development of the diagnostic tools for the COMPASS-U tokamak and diagnostic plans for the first plasma
P-1.240	Marc van de Pol	Upgraded Pilot-PSI: A novel research facility to study plasma material interaction by ion beam analysis during high flux plasma exposures
P-1.241	Adriano Luchetta	As built design of the control system of the ITER full-size beam source SPIDER in the Neutral Beam Tests Facility - A critical review
P-1.249	Huajun Liu	Current-sharing Temperature Assessment of Bi-2212 Cable-in-Conduit Conductor
P-1.253	Jun Gyo Bak	Experimental investigation of toroidal eddy current on the in-vessel conducting structures during disruptions in the KSTAR tokamak
P-1.254	Weibao Li	Experimental study on drainage and drying process of the EAST divertor based on self-designed drying test platform
P-1.256	Yuming Gu	The Engineering Design of Half Size RF Negative Ion Source for CRAFT-NNBI
P-1.257	Takanori Murase	Investigation of Joining Quality in Tungsten and Copper Alloy Joints using Spark Plasma Sintering for Plasma Facing Materials
P-1.264	Jaroslav Stoklasa	Possibility of processing waste tungsten dust from the nuclear fusion process by a combination of several technologies

P-1.269	Zihao Zhu	Influence of Diffuser Structure on Draining and Dry Process of Tokamak Cooling Water System
P-1.272	Haonan Sun	Decomposition rate of methane in helium RF plasma
P-1.274	Shusheng Wang	Development and Test of the Static Magnetic Field Test Facility for the ITER Tokamak Building
P-1.275	Yong Yang	Development and Test of a 1 m / 275 mT Large-Scale High-Intensity Magnetic Field Immunity Test Coil for ITER
P-1.276	Zhe Liu	Heat transfer analysis of the in-vessel components for EAST in the baking process
P-1.277	Yunxiang Tian	Impulse power detection for fusion power supply based on cascaded quasi-proportion resonance
P-1.278	Hokyu Moon	Feasibility Test of Convective Baking for Factory Acceptance on ITER Vacuum Vessel Sector
P-1.279	Wei Yi	Optimal design and manufacturing of the neutralizer for CRAFT negative ion-based neutral beam injection facility
P-1.280	Khiem Do Duy	Fabrication and characterization of zirconium oxide coating on tubular steel by metal organic decomposition
P-1.281	Jingen Zhang	Generalized Predictive control of baking temperature of East internal parts
P-1.282	Kento Shirota	Effect of gamma-ray irradiation on liquid lithium-lead corrosion of ceramic coatings
P-1.283	Satoshi Yamamoto	In-vessel thermocouple array and measurement of stray microwave on JT-60SA
P-1.284	Hyoseong Gwon	Impacts of Laser Beam Welding Parts on Structural Integrity of the HCCR Blanket First Wall
P-1.285	Yuqing Chen	Neutronic characteristics of the upgraded EAST neutral beam injection system
P-1.286	Hibiki Yamazaki	Evaluation of a newly developed low reflection dummy load for high power millimeter waves
P-1.287	Takaaki Iijima	Thermal mechanical analysis of neutral beam facing components for safety interlock system in JT-60SA
P-1.288	Wataru Matsuura	Deuterium permeation behaviors of F82H steel and zirconium oxide coating after exposure to solid breeder pebbles
P-1.289	Lizhen Liang	Design and Verification of Electrostatic Residual Ion Dump for CRAFT NNBI
P-1.292	Shigetoshi Nakamura	Mechanical load test of pedestal for error field correction coil in JT-60SA
P-1.293	Yen-Jui Huang	Corrosion and stress corrosion behavior of CuCrZr alloy in high temperature pure water environment relevant to Japan's DEMO divertor
P-1.295	Yahong Xie	Long pulse operation of neutral beam injector on EAST tokamak
P-1.296	Lidong Yao	Structural design and safety analysis of EAST baking piping system
P-1.298	Wei Wei	The design of the electrical insulation flange for EAST Divertor Primary Heat Transfer System
P-1.299	Zhigao Ni	Task flow engine based on extended directed graph and blackboard model
P-1.300	Li Li	Standardized Software Interface by Modeling Oscilloscope in PEPC

P-1.301	Xiyang Zhang	Cooling system design and thermo-hydraulic analysis for CFETR Divertor Dome
P-1.302	Hyunyeong Lee	RF conditioning to suppress the multipactor discharge for helicon wave current drive in KSTAR
P-1.303	Yuki Hayashi	Heat flux measurement on actively-cooled tungsten divertor in the Large Helical Device
P-1.304	Ju-Yeon Han	Feasibility Study of Grouping and Excavation for the repair of PAUT indications on ITER Vacuum Vessel
P-1.305	Sungjin Kwon	Electromagnetic Load Evaluation of K-DEMO Divertor for MD and VDE Plasma Disruption Scenarios
P-1.306	Takao Hayashi	In-bore ultrasonic testing of cooling pipes in the lower divertor cassette of JT-60SA
P-1.307	Yoshiyuki Watanabe	Effects of incascade defect clustering and defect cluster migration on microstructural evolution in F82H steel under irradiation: Mean field cluster dynamics simulation
P-1.308	Naonori Okada	Effects of ion temperature on detachment plasma formation using a linear divertor simulator TPDsheet-U
P-1.309	Ryuichi Onuma	Enhancement effect of volume production by electron emitter on cesium-free negative ion source TPDsheet-U
P-1.310	Ryota Imazawa	Design of Optical Transmission Line of ITER Poloidal Polarimeter in Consideration of Manufacturability, Automated Optical Alignment and Radiation Hardness
P-1.311	Jaesic Hong	The Advance of the Interlocks for KSTAR
P-1.312	Jae Jung Urm	Dynamic Simulation of a Cryogenic Distillation Column for Isotope Separation System
P-1.313	Yuta Shindo	Recovery rate depending on the type of lithium source solution during lithium recovery by electrodialysis
P-1.314	Satoru Kikuchi	Li vaporization behavior and mechanical properties of Li_8ZrO_6 in high temperature reducing atmosphere for tritium breeding materials
P-1.315	YoungHwa An	Neutron irradiation test of CCD camera for ITER VUV spectrometer systems
P-1.316	Jae-Hwan Kim	Compatibility of tritium breeders and neutron multipliers as a mixture-packing concept of pebble bed blanket for JA DEMO fusion reactor
P-1.317	Junichi Hiratsuka	Completion of beamline design for 100 s beams in the neutral beam injector for JT-60SA
P-1.318	Wenhai Guan	Evaluation on Nonirradiated Thermal-mechanical response of WCCB TBM following RCC-MRx
P-1.319	Yoshiaki Akatsu	Compression properties of beryllide pebbles at high temperatures
P-1.320	Masataka Nakahira	ATTENUATION MITIGATION ON ULTRASONIC TESTING AT TF COIL STRUCTURE OF ITER
P-1.321	Toshiya Nakata	Evaluation of tensile ductility using shape change of gauge section of small-tensile specimen
P-1.322	Taehyun Hwang	Tensile properties of titanium beryllium intermetallic compounds
P-1.323	Beom Seok Kim	Parametric studies on electromagnetic and thermofluidic characterization of in-vessel control coil in KSTAR

P-1.324	Suguru Nakano	Evaluation of dissolution reaction behavior of hard-to-dissolve beryllium ore by microwave heating
P-1.325	Jun Luo	Embedding AI into Pulse Shaping Closed-loop Control
P-1.326	Yunhu Jia	Numerical and theoretical study on water draining process pushed by gas for several manifolds with different Transition Structure
P-1.327	Jingjie Shen	Effects of annealing temperature on microstructure and mechanical properties of high-purity vanadium alloys
P-1.328	Masahiro Tanaka	Tritium decontamination in vacuum vessel after deuterium plasma experiment due to air exposure
P-1.329	Tae-Seong Kim	Design of the Two Region Arc Plasma ion source for a development of Cs-free negative-ion source
P-1.330	Donghu Wang	Design and simulation of 1.5T flip-over conduction-cooled superconducting magnet cryogenic system
P-1.331	Yutaka Sugimoto	Effect of the inside pressure of helium bubbles on the morphology and mobility in beryllium
P-1.332	Zhixin Yao	Toward a digital-twin for real-time heavy-load robot arm control in fusion remote handling application
P-1.333	Min Yu	Conceptual design of Nb3Sn coil heat treatment for conductor test platform system
P-1.334	Jing Sun	Prediction and validation for welding deformation of the upper port stub
P-1.335	Dongsheng Yang	Study on the Technology of Bi-2212 Superconducting Wire Joints
P-1.336	Ji Sung Kang	Maturity Level of Physics and Technology Required for K-DEMO Design Space
P-1.337	Shengquan Xue	Development of 7 T-72 mm bore NbTi magnet
P-1.338	Haihong Liu	Study on the process and critical current of copper tube extrusion and different twist pitch for YBCO HFRC Cable
P-1.339	Tianli Dai	Exploration of the limit impregnation thickness for dense superconducting magnet coil
P-1.340	Guanyu Xiao	Experimental study on the critical current of ReBCO solenoid insert coil under various curing process
P-1.341	Mengliang Zhou	Study on mechanical and electrical properties of reinforced Bi-2212 superconducting strands
P-1.342	Daigo Tsuru	Design of water-cooled first wall of the JT-60SA
P-1.343	Chuanyi Zhao	The Effect of Cold Working and Heat Treatment on Low Temperature Mechanical Properties of Jacket Material for CFETR
P-1.344	Peng Gao	Recent progress of research on Bi-2212 round wires used for future high-field insert coils at the ASIPP
P-1.345	Nanyu Mou	HHF testing and post-test examination of flat-type mock-up for CFETR divertor
P-1.346	Le Han	High heat flux testing for W/Cu monoblocks of upper and lower divertor
P-1.348	Yan Wang	Study on erosion mechanism and surface morphology modulation of tungsten in Tokamak via abrasive water jet
P-1.349	Qianqian Lin	High heat flux testing of flat-type CFETR divertor mock-up using W-ZrC as armour material

P-1.350	Huan Jin	Fatigue tests on ITER IVC SS316LN jacket and inner copper conductor
P-1.352	Taiga Goka	Reduction of co-extracted electron in a Cs-free negative ion source using TPDsheet-U
P-1.353	Hiroyasu Tanigawa	Applicability of Linear Friction Welding to RAFM steel F82H
P-1.354	Zuoguang Li	Research progress of superconducting joint for future application in nuclear fusion
P-1.355	Sachiko Yoshihashi	Prospect of radioactivity in the LHD main structure in the deuterium plasma experiments
P-1.356	Michiko Ahn Furudate	Quasi-Classical-Trajectory Study on Tritium Exchange Reactions in Breeding Blanket Purge Gas
P-1.357	Shunsuke Hayashi	Surface modification of W samples by D-plasma exposure using TPDsheet-U
P-1.358	Chongfeng Zhong	The optimization design for high payload remote handling manipulator for a tokamak reactor
P-1.359	Yohji Seki	Improvement of manufacturing process of plasma-facing unit for ITER divertor outer vertical target

Thursday, 22 September 2022, 16:30 – 19:00**Poster Session III (Tajan Hall)**

P-2.1	Chiarasole Fiamozzi Zignani	AC and stability characterizations of Low- and High-Field Nb ₃ Sn prototype conductors for DEMO
P-2.3	Matic Brank	Synthetic diagnostic reconstruction of ITER First Plasma SOL heat fluxes
P-2.23	Sándor Zoletnik	Shattered pellet technology development in the ITER DMS support laboratory
P-2.25	Raul Moron Ballester	The beam source of the MITICA experiment: strategy adopted, manufacturing design, engineering and fabrication of the main components
P-2.31	Bernhard Sieglin	Dynamic pulse scheduling in ASDEX Upgrade: Disruption avoidance and investigation of the H-Mode density limit
P-2.34	Stefan Illy	Sounding the Possibilities of Megawatt-Class Fusion Gyrotrons Operating at the Second Harmonic of the Cyclotron Frequency
P-2.35	Nils Holstein	Development and basic qualification steps towards an electrochemically based H-sensor for Lithium System applications
P-2.36	Pavel Tomšič	Relationship between cooling systems and fatigue life in nuclear fusion: the SPIDER grounded grid test case
P-2.39	Francesco Maviglia	Studies on EU-DEMO 3D coils requirements and conceptual design for error field correction and plasma control
P-2.45	Ivona Vasileska	SOLPS-ITER GUI framework for IMAS
P-2.57	Floriane Montupet- Leblond	Tritium permeation and inventory in DEMO Eurofer97 exposed to water
P-2.58	Alessandro Venturini	Experimental quantification of helium leakages from flanged connections at HCPB TBS operative conditions
P-2.59	Henri Greuner	Investigation of heat load limits of European DEMO divertor target mock-ups
P-2.62	Cristiano Ciurluini	Thermal-hydraulic assessment of Once-Through Steam Generators for EU-DEMO WCLL Breeding Blanket primary cooling system application
P-2.64	Ion Cristescu	Activities on tritium permeation and barriers developments to mitigate the releases from fusion devices
P-2.66	Jonggab Jo	Design of a Waveguide Antenna for Lower Hybrid Fast Wave
P-2.67	Hyoung Chan Kim	Analysis of high heat flux tested tungsten mono-blocks by hardness and microstructural profiling
P-2.68	David Velasco	Control upgrade for the TCV coils power supplies
P-2.69	Raphael Mitteau	Status of WEST wall monitoring system
P-2.70	Alessandra Vannoni	Development of a steam generator mock-up for EU DEMO fusion reactor: conceptual design and code assessment
P-2.73	Marco De Pietri	Impact of detailed geometric modelling of an ITER Heat Exchanger on the dose rate field due to Activated Corrosion Products
P-2.74	Michal Kordac	Solubility of iron in lead and lead-lithium alloy
P-2.77	Alicia Marín Roldán	Simultaneous VUV and UV-NIR LIBS analysis of screws from the COMPASS tokamak
P-2.78	Vittorio Cossu	Lithium-Lead/water interaction: LIFUS5/Mod3 series E tests analysed by SIMMER-III coupled with RELAP5
P-2.80	Pavel Veis	Fuel retention quantification by CF-LIBS of Tungsten-Tantalum (WTa-D) as Plasma-Facing Material

P-2.83	Rocco Mozzillo	Structural assessment of the gripper interlock of the DEMO breeding blanket transporter
P-2.84	Joshua Mitchell	Scenario Trajectory Optimisation and Control on STEP
P-2.85	Luigi Emanuel Digrazia	A Simulation Tool to Design and Test Control Laws for JT60-SA Scenarios
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P-2.88	Jan Cecrdle	Predictive modelling of ASDEX-Upgrade liquid metal divertor experiment
P-2.89	Vladimir Chakin	Swelling of highly neutron irradiated beryllium and titanium beryllide
P-2.90	Andrea Tarallo	Preliminary mechanical design of the Once-Through Steam Generators for the EU DEMO WCLL breeding blanket concept
P-2.93	Marco Utili	Design and integration of the WCLL Tritium Extraction and Removal System into the European DEMO tokamak Reactor
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P-2.98	Jan Horacek	New technique suppressing ELMs in a big tokamak by fast divertor sweeping
P-2.100	Yevhen Zayachuk	Deuterium retention in bulk tungsten divertor components of JET ITER-like wall
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P-2.102	Yuto Noguchi	Design update of ITER Blanket remote handling system
P-2.103	Daisuke Umezaki	Effect of large-angle scattering and magnetic field pitch angle on particle transport in divertor plasmas
P-2.104	Sudhirsinh Vala	Development of accelerator-based D-T Neutron generator for fusion neutronics studies
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P-2.109	Thierry Alarcon	The versatile fueling systems of WEST
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P-2.111	Jonathan Gaspar	Post-mortem assessment of the WEST Fiber Bragg grating and thermocouple diagnostic performances with HADES
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P-2.125	Alessio Mancini	Predictive simulations for plasma scenarios in the SMART tokamak using ASTRA and ASCOT5
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P-2.127	Pietro Maccari	Design of a prototypical Mock-Up for the experimental investigation of the WCLL BB First Wall performances
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P-2.135	Attila Bohm	Development of the In-Vessel Optical box of the ITER Erosion Deposition Monitor
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P-2.162	James Anderson	Novel High Power Monitors and Loads for ECH Transmission Lines
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P-2.169	Davide Flammini	Neutronic analyses for Standard Modular Equatorial Diagnostic Port Plug in ITER
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P-2.176	Stephen Dixon	Multiphysics simulation and analysis of a divertor cassette
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P-2.185	Anurag Saigiridhari	Summary of a Parametric Blanket Geometry Tool Layout (Parablank) and its Application within the Design Process
P-2.186	Riccardo Ragona	Fast Diagnostic Systems on NORTH
P-2.188	Pierluigi Mollicone	Preliminary structural design verification of the DEMO breeding blanket transporter and transfer cask
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P-2.200	Masamichi Murayama	Experimental verification of the electrostatic shield design for 1 MeV negative ion accelerator in ITER HNB
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P-2.206	Hyunjung Lee	Assessment of hysteresis loss for KSTAR superconducting magnet during AC losses measurement
P-2.207	Koyo Munechika	Development of 3-D tomography with infrared imaging video bolometer to elucidate the mechanism of the radiative collapse
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P-2.211	Tétény Baross	Numerical modelling of the contact electrical resistance and bonded area of the diffusion bonding tests on Gleeble 3800 comparing with the theoretical diffusion model by Hill and Wallach
P-2.212	Pavel Vladimirov	Hydrogen trapping in intermetallic beryllium alloys
P-2.213	Marco De Angeli	Wall cratering upon high velocity dust impact
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P-2.221	Shoichi Hatakeyama	Study for high reliable 1MV high voltage power supply of the ITER HNB
P-2.222	Daniel Dunai	First results of a mock-up of a conceptual optical pellet diagnostic for Shattered Pellet Injectors of the ITER DMS
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P-2.229	HeeJin Shim	Comparison Study on the Derivation of In-Structure FRS during Seismic Events for Application of ITER Upper Port 18
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P-2.236	Théo Verdier	A novel fast digitizer setup for microwave measurements of ion dynamics and plasma-wave interaction
P-2.237	Jürgen Wendel	Tritium Laboratory Karlsruhe – Technically matured from basic technology to advanced experiments and analytics

P-2.238	Amelia Billings	INVESTIGATING THE MECHANICAL PROPERTIES OF CUCRZR AND CU USING IN-SITU 3D X-RAY COMPUTED TOMOGRAPHY AND DIFFRACTION
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P-2.242	James Hargreaves	Modelling the effects of DEMO Plasma Transients on Eurofer 97's Microstructure
P-2.243	Tomáš Kubásek	High Heat Flux testing of Full-Scale Prototypes at HECZA facility
P-2.244	Thomas Jensen	Feedback Regulated Toroidal and Solenoidal Field Coil Discharges at the NORTH Tokamak
P-2.245	Soma Olsaz	Feasibility of the EDICAM camera for runaway electron detection in JT-60SA disruptions
P-2.247	Tristan Calvet	Impact of brazing residual stresses and defects in tungsten-Eurofer97 dissimilar joints for nuclear fusion
P-2.248	Jie Chen	Studies of self-passivating SMART alloys with reduced brittleness
P-2.250	Francesca Cau	Analysis and Design of the Actively Cooled JT-60 SA Divertor
P-2.251	Himank Anand	Modelling, design and simulation of plasma magnetic control for the Spherical Tokamak for Energy Production (STEP)
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P-2.266	Gheorghe Popescu	Semi-quantitative determination of a tritium removal facility characteristic risk
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P-2.281	Mykyta Varavin	Development status of sub-mm unambiguous interferometer for COMPASS-Upgrade
P-2.282	Elina Pajuste	Graphene-based electrochemical pumping for tritium separation
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P-2.316	A. Z. Miniyazov	Degradation of the Structure and Properties of Tungsten Carbide Surface Layers under Plasma Effect
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P-2.319	Matthew Maniscalco	Development of front-end optical components and plasma cleaning for the ITER VSRS diagnostic system
P-2.323	A. Lau	Development of tungsten fiber reinforced tungsten (Wf/W) using yarn based textile preforms
P-2.324	Peter Spaeh	Design progress of structural components of the EU DEMO EC equatorial launcher
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