29th IEEE Symposium on Fusion Engineering (SOFE-2021)
Virtual Program Overview
All times are Mountain Standard Time (UTC - 7 hours)

MONDAY December 13, 2021			TUESDAY December 14, 2021			WEDNESDAY December 15, 2021			THURSDAY December 16, 2021		
8:00 - 8:15 Welcome / Conference Opening			8:00 - 10:00 Oral: 211	8:00 - 10:00 Oral: 212	8:00 - 10:00 Poster: 211	**8:00 - 10:00** Plenary 3			8:00 - 10:00 Oral: 411	8:00 - 10:00 Oral: 412	8:00 - 10:00 Poster: 411
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290	Welcome / Conference Opening	Organization	Opening Plenary	Kevin	Freudenberg	ORNL
170	ITER in Assembly Phase: strong ongoing progress	ITER Status and Progress	Opening Plenary	Alain	Becoulet	ITER Organization
285	Review of Inertial Confinement Fusion: Physics and Engineering Challenges*	MFE, MTF and IFE Alternate Concepts	Opening Plenary	Cliff	Thomas	University of Rochester, Laboratory for Laser Energetics
48	The U.S. Blanket and Fuel Cycle Program: Progress and Plans	Chambers, Blankets, and Shields	Oral111: Chambers, Blankets, Shields, and Manufacturing	Charles	Kessel	Oak Ridge National Laboratory
223	The WCCB blanket design and its R&D activities in ASIPP for CFETR	Chambers, Blankets, and Shields	Oral111: Chambers, Blankets, Shields, and Manufacturing	Lei	Chen	Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP)
487	Capabilities and Test Programme of the CHIMERA Fusion Technology Facility	Chambers, Blankets, and Shields	Oral111: Chambers, Blankets, Shields, and Manufacturing	T. R.	Barrett	UKAEA, Culham Science Centre, Abingdon, Oxfordshire OX14 3DB UK
45	Assessing the Prediction Performance of Subcooled Flow Boiling Critical Heat Flux Correlations using One-side-heated Hypervapotron Cooling Channel for Fusion Reactor Applications	Chambers, Blankets, and Shields	Oral111: Chambers, Blankets, Shields, and Manufacturing	Ji Hwan	Lim	Pohang University of Science and Technology
419	Manufacture of embedded cooling channels in copper using CoreFlow	Design for Manufacture and Advanced Manufacturing	Oral111: Chambers, Blankets, Shields, and Manufacturing	Simon	Kirk	UK Atomic Energy Authority
252	Experimental study on critical heat flux of one-side heated flat heat sink under sub-cooled flow boiling conditions	Operation, Maintenance, Remote Handling, RAMI	Oral112: Operation, Maintenance, Remote Handling, RAMI	Ji Hwan	Lim	Pohang University of Science and Technology
91	Analysis of Existing and Proposed Maintenance Deployment Systems Towards DEMO MPD Development	Operation, Maintenance, Remote Handling, RAMI	Oral112: Operation, Maintenance, Remote Handling, RAMI	D.	McGarrigle	UKAEA, Culham Science Centre, Abingdon, OX14 3DB, UK
254	Onset of nucleate boiling in smooth channel under one-side high heat load condition	Operation, Maintenance, Remote Handling, RAMI	Oral112: Operation, Maintenance, Remote Handling, RAMI	Ji Hwan	Lim	Pohang University of Science and Technology
14	Experimental Study of Critical Heat Flux and Onset of Flow Instability with One-side Heated Smooth Channel for Plasma Facing Component Safety	Safety and Neutronics	Poster111: Divertors, Neutronics, Alternates	Ji Hwan	Lim	Pohang University of Science and Technology
822	Thermonuclear Field Reversed Configuration plasmas in the Trenta prototype	MFE, MTF and IFE Alternate Concepts	Poster111: Divertors, Neutronics, Alternates	David	Kirtley	Helion Energy
256	Exploring onset of nucleate boiling heat flux with hypervapotron channel under one-side heating condition	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Ji Hwan	Lim	Pohang University of Science and Technology
18	Heat transfer analysis on swirl tube with circle perforated and jagged twisted tape inserts for fusion reactor application	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Ji Hwan	Lim	Pohang University of Science and Technology
59	Progress in the initial design activities for CFETR divertor development	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Tiejun	Xu	Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences
60	Design of EAST lower divertor	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Pengfei	Zi	Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences
72	Prediction of onset of flow instability (OFI) of Screw tube in one-side heating condition for divertor target application	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Ji Hwan	Lim	Pohang University of Science and Technology
109	High fidelity tokamak heat load predictions for engineering design using the open source Heat flux Engineering Analysis Toolkit (HEAT)	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Tom	Looby	University of Tennessee - Knoxville
305	Development of poloidal horseshoe limiter concept for JA DEMO	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Weixi	Chen	national institutes for quantum and radiological science and technology
313	Analysis and Optimization of Heat Transfer Capacity of Calorimeter for EAST Neutral Beam Injector	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	tang	ning	Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP)

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417	Conceptual design of CFETR Divertor Dome for Remote Handling	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Xiyang	Zhang	Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP)
15	Development of a new two-phase pressure drop multiplier correlation for screw tubes using artificial intelligence regression method toward fusion reactor safety	Safety and Neutronics	Poster111: Divertors, Neutronics, Alternates	Ji Hwan	Lim	Pohang University of Science and Technology
495	Thermomechanical Stability Assessment for the Upgrade Divertor System of KSTAR	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Sungjin	Kwon	Korea Institute of Fusion Energy
566	Preliminary Design of Cooling Water System for the EAST Lower Divertor	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Jinxuan	Zhou	Institute of Plasma Physics Chinese Academy of sciences; University of Science and Technology of China;
645	Numerical analysis of stress analysis and fatigue analysis for CFETR divertor	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Kun	Tian	Hefei Institutes of Physical Science, Chinese Academy of Sciences
694	The development and application of microchannel heat sink on W/Cu flat-type mock-up	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Mingxiang	Lu	MIIT Key Laboratory of Thermal Control of Electronic Equipment, School of Energy and Power Engineering, Nanjing University of Science and Technology
696	Numerical investigation of heat transfer in open microchannel heat sinks with transverse ribs for high heat flux dissipation	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Chang	Liu	MIIT Key Laboratory of Thermal Control of Electronic Equipment, School of Energy and Power Engineering, Nanjing University of Science and Technology
725	Numerical investigation of fluid flow and heat transfer in macrochannel heat sink with hollow ribs	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Kai	Cheng	MIIT Key Laboratory of Thermal Control of Electronic Equipment, School of Energy and Power Engineering, Nanjing University of Science and Technology
19	Development of sub-cooled flow boiling heat transfer correlation for swirl tube with artificial intelligence (AI) techonology for divertor cooling application	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Ji Hwan	Lim	Pohang University of Science and Technology
74	Critical heat flux analysis with one-side heated swirl tube in sub-cooled flow boiling conditions	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Ji Hwan	Lim	Pohang University of Science and Technology
212	Experimental study on contact thermal resistance between graphite and CuCrZr in vacuum	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Le	Han	Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences
261	A new empirical correlation for the prediciton of onset of nucleate boiling heat flux in one-side heated swirl tube for fusion reactor application	Divertors and High Heat Flux Components	Poster111: Divertors, Neutronics, Alternates	Ji Hwan	Lim	Pohang University of Science and Technology
224	Development of an object-oriented, thermal-hydraulics model for ARC Flibe loop	Safety and Neutronics	Poster111: Divertors, Neutronics, Alternates	Samuele	Meschini	Politecnico di Torino
317	Preliminary Development and Verification of Divertor Module for CFETR System Safety Analysis Code	Safety and Neutronics	Poster111: Divertors, Neutronics, Alternates	Yifei	Wang	University of Science and Technology of China;Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences
361	Dynamic Event Tree analysis as a tool for risk assessment in nuclear fusion plants using RAVEN and MELCOR	Safety and Neutronics	Poster111: Divertors, Neutronics, Alternates	Matteo	D'Onorio	Sapienza University of Rome
480	A comprehensive model for tritium transport in WCLL breeding blanket of EU-DEMO reactor under pulsed operation	Safety and Neutronics	Poster111: Divertors, Neutronics, Alternates	Luigi	Candido	Politecnico di Torino
526	Influence of electrodes geometrical properties on the neutron production rate of a discharge fusion neutron source	Safety and Neutronics	Poster111: Divertors, Neutronics, Alternates	Mahmoud	Bakr	Institute of advanced energy, Kyoto University, Assiut university

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607	Effects of metal hydride coatings on neutron production rate at electrodes surface in a discharge-type fusion neutron source	Safety and Neutronics	Poster111: Divertors, Neutronics, Alternates	Toshiro	Sakabe	Graduate School of Energy Science, kyoto University
362	Study of Proton-Boron Fusion Burn Driven by Short Pulse Lasers	MFE, MTF and IFE Alternate Concepts	Poster111: Divertors, Neutronics, Alternates	Tom	Mehlhorn	Mehlhorn Engineering Consulting Services

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125	Lithium, a path to make fusion energy affordable	Innovative and Disruptive Technologies	Plenary2	David	Ruzic	University of Illinois at Urbana-Champaign
128	Disruption Mitigation Research for ITER and Future Burning Plasma Tokamaks	Disruption Mitigation and Control	Plenary2	Daisuke	Shiraki	Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831, USA
413	Recent status and plan for steady-state high-performance plasma operation in KSTAR	Next Step Devices and Power Plants	Plenary2	Woong Chae	Kim	Korea Institute of Fusion Energy
181	Operating ITER grade tungsten plasma facing components in a tokamak environment: overview of WEST first phase of operation	Plasma Facing Materials and Surface Engineering	Oral121: Plasma Facing Materials	Emmanuelle	Tsitrone	CEA Cadarache
192	Developments and experiments of flowing liquid Li limiters on EAST	Plasma Facing Materials and Surface Engineering	Oral121: Plasma Facing Materials	jiansheng	hu	Institute of Plasma Physics, Chinese Academy of Sciences, Hefei 230031, China
617	Overview of the new IGNIS-2 surface science facility for the in-situ analysis of plasma-facing components	Plasma Facing Materials and Surface Engineering	Oral121: Plasma Facing Materials	Matthew	Parsons	The Pennsylvania State University
423	Hydrogen isotope retention as a function of damage of self-ion irradiated fusion materials	Plasma Facing Materials and Surface Engineering	Oral121: Plasma Facing Materials	Anthony	Hollingsworth	UKAEA, Culham Science Centre, Abingdon, OX14 3DB, UK
554	Lithium's Influence on HIDRA Steady State Plasmas and First Results from the HIDRA Material Analysis Test-stand	Plasma Facing Materials and Surface Engineering	Oral121: Plasma Facing Materials	Andrew	Shone	University of Illinois Urbana-Champaign
348	Challenges to prepare JET for/operate JET during a DT campaign	Fueling, Exhaust and Vacuum Systems	Oral 122: Fueling, Exhaust, and Disruption Mitigation	Ben	Wakeling	1UKAEA, Culham Science Centre, Abingdon, Oxon, OX14 3DB, UK
420	Feasibility test of disruption mitigation system with using multiple shattered pellet injections in KSTAR	Disruption Mitigation and Control	Oral 122: Fueling, Exhaust, and Disruption Mitigation	Jayhyun	Kim	Korea Institute of Fusion Energy, 169-148 Gwahak-ro, Yuseong-gu, Daejeon, 34133, Republic of Korea
189	Design and Testing of a Prototype Eddy Current Actuated Valve for the ITER Shattered Pellet Injection System	Disruption Mitigation and Control	Oral 122: Fueling, Exhaust, and Disruption Mitigation	Trey	Gebhart	Oak Ridge National Laboratory
169	Tritium recovery from SPARC	Fueling, Exhaust and Vacuum Systems	Oral 122: Fueling, Exhaust, and Disruption Mitigation	Walter	Shmayda	University of Rochester, Laboratory for Laser Energetics
116	Upgrade of integrated control system and high voltage power supply for stable operation of KSTAR ECH system	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	SUNGGUG	Kim	kfe
577	Langmuir probes as a tool to investigate plasma uniformity in a large negative ion source	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Carlo	Poggi	Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy
582	High Field Side Lower Hybrid Current Drive System for DIII-D Overview and Status	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Stephen	Wukitch	MIT Plasma Science and Fusion Center
623	High Field Side Lower Hybrid Current Drive Low Level RF Control	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Mohamed	Mohamed	MIT PSFC
658	MPEX High Heat Flux Bellows for Component Alignment in High Microwave Environment	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Adam	Aaron	Oak Ridge National Lab
663	Early operational experience and improvements of SPIDER ion source power supplies at beam energies exceeding 30 keV	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Riccardo	Casagrande	Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy
246	Design and testing of ceramic breaks for the electrostatic residual ion dump of the ITER neutral beam test facility	Materials	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Matteo	Zaupa	Consorzio RFX
249	Water degradation in ITER Neutral Beam Test Facility cooling circuits	Materials	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Claudia	Gasparrini	Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy, Imperial College London, Exhibition Road, SW72AZ, London, UK
250	Corrosion and metal release of Copper and Stainless Steel exposed to Ultrapure Water	Materials	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Caterina	Cavallini	Consorzio RFX, University of Padua

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567	Rapid development pathway for reactor-relevant RF antenna materials	Materials	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Gregory	Wallace	MIT Plasma Science and Fusion Center
31	Progress on the ITER P-DRGA at Wendelstein 7-X	Fueling, Exhaust and Vacuum Systems	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Georg	Schlisio	Max-Planck-Institut für Plasmaphysik, Wendelsteinstr. 1, 17489 Greifswald, Germany
268	DIII-D Electron Cyclotron Heating and Current Drive System Status and Plans	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Mirela	Cengher	General Atomics
164	Influence of heat treatments on the near surface tritium concentration profiles	Fueling, Exhaust and Vacuum Systems	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Matthew	Sharpe	University of Rochester, Laboratory for Laser Energetics
292	R&D Extruder Developments for the Wendelstein 7-X Continuous Pellet Fueling System	Fueling, Exhaust and Vacuum Systems	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Steven	Meitner	Oak Ridge National Laboratory
371	Simulation of mercury driven diffusion pumps for torus exhaust pumping	Fueling, Exhaust and Vacuum Systems	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Tim	Teichmann	Karlsruhe Institute of Technology
384	On the Thermodynamics of Pellet Formation and Acceleration in a Repeating Gas Gun Pellet Injector	Fueling, Exhaust and Vacuum Systems	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Larry	Baylor	Oak Ridge National Laboratory
416	Pre-conceptual design point of the EU-DEMO fuel cycle: Tritium inventories and flow rates	Fueling, Exhaust and Vacuum Systems	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Jonas	Schwenzer	Karlsruhe Institute of Technology
432	Plasma-driven permeation of deuterium and protium in varying gas mixtures	Fueling, Exhaust and Vacuum Systems	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Yannick	Kathage	Karlsruhe Institute of Technology
551	Evaluation of hydrogen isotope transport performance using proton conductor for divertor pumping system	Fueling, Exhaust and Vacuum Systems	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Shuhei	Yamaguchi	Graduate School of Energy Science, kyoto University
831	THROUGHPUT CHARACTERIZATION OF SOLID HYDROGENIC FUEL SOURCES FOR MULTI-PURPOSE PELLET LAUNCHING SYSTEMS*	Fueling, Exhaust and Vacuum Systems	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Larry	Baylor	Oak Ridge National Laboratory
277	Design considerations for the implementation of a high-field side transient CHI system on QUEST	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Roger	Raman	University of Washington
340	Performance optimization of the electrostatic accelerator for DTT Neutral Beam Injector	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Fabio	Veronese	Consorzio RFX (CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA), Corso Stati Uniti 4, 35127 Padova
374	Biogeography-Based Optimization of the resonator cooling in a MW-class gyrotron for fusion applications	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Rosa	Difonzo	Dipartimento Energia “Galileo Ferraris”, Politecnico di Torino, Torino (TO)
399	MW-Class RF Loads for Gyrotrons	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Lawrence	Ives	Calabazas Creek Research,Inc.
400	Assessment of the performance of different cooling configurations for the launcher mirrors of the ECRH system of the DTT facility	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Andrea	Allio	Dipartimento Energia “Galileo Ferraris”, Politecnico di Torino, Torino (TO)
497	A Coaxial Helicity Injection System for Non-solenoidal Startup Studies on the PEGASUS-III Experiment	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Joshua	Reusch	University of Wisconsin-Madison
535	The New PEGASUS-III Experiment	Heating and Current Drive	Poster121: Heating & Current Drive, Materials, Fueling and Vacuum	Aaron	Sontag	University of Wisconsin-Madison
177	Preparing W7-X for high heat flux divertor operation	Divertors and High Heat Flux Components	Oral211: Divertors and High Heat Flux	Paul	van Eeten	Max-Planck Institut für Plasma Physik
537	Update on Experiments for the national liquid metal PFC development program at the University of Illinois	Divertors and High Heat Flux Components	Oral211: Divertors and High Heat Flux	Daniel	Andruczyk	University of Illinois Urbana-Champaign
557	Liquid Lithium Divertor Configurations Involving a Porous Structure and MHD Drive	Divertors and High Heat Flux Components	Oral211: Divertors and High Heat Flux	Andrei	Khodak	Princeton Plasma Physics Laboratory

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642	Progress on the liquid metal 'divertorlets' concept: experiments and simulations	Divertors and High Heat Flux Components	Oral211: Divertors and High Heat Flux	Zhen	Sun	Princeton Plasma Physics Labratory
92	Nuclear analyses of ITER Diagnostics Lower Ports	Safety and Neutronics	Oral212: Safety and Neutronics	Rosaria	Villari	ENEA FSN Department, Via E. Fermi 45, 00044 Frascati, Rome, Italy
346	Tritium Accident Analyses and Social Licensing Implications for D-T Fusion Facilities	Safety and Neutronics	Oral212: Safety and Neutronics	Liam	Hines	MIT
337	Measurement of tritium production rates in a neutronics mockup of the WCLL breeding blanket	Safety and Neutronics	Oral212: Safety and Neutronics	Axel	Klix	Karlsruhe Institute of Technology
527	Radioactive Waste Studies for Short-Term Experiments	Safety and Neutronics	Oral212: Safety and Neutronics	Stefano	Segantin	Politecnico di Torino
17	Study on effect of hypervapotron fin angle on sub-cooled flow boiling heat transfer in one-side high heat load condition	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Ji Hwan	Lim	Pohang University of Science and Technology
603	NSTX-U Machine Core Vacuum Seals Upgrade Design	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Feng	Cai	Princeton Plasma Physics Laboratory
601	Weld qualification by analysis and testing for National Spherical Torus Experiment Upgrade (NSTX-U) Recovery Passive Plate Project	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Ankita	Jariwala	Princeton Plasma Physics Laboratory
608	A formal verification and validation of a low magnetic Reynolds number MHD code for fusion applications	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Daniel	Suarez	Universitat Politècnica de Catalunya
635	Tritium transport modeling at the pore scale in ceramic breeder materials using TMAP8	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Pierre-Clément	Simon	Idaho National Laboratory
641	Thermohydraulic simulation of ceramic breeder blankets	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Fande	Kong	Idaho National Laboratory
648	A ceramic breeder blanket design for the Fusion Nuclear Science Facility	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Paul	Humrickhouse	Idaho National Laboratory
686	Single-phase heat transfer analysis with hypervapotron heat sink	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Ji Hwan	Lim	Pohang University of Science and Technology
687	Characterizing Alumina-based Tritium permeation barriers for Test Blanket System Helium-coolant pipes	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Ciro	Alberghi	Politecnico di Torino
750	Optimization of a Simplified ARC Reactor Blanket Design through Coupled Neutronics, Thermal Hydraulics Modeling	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Jack	Fletcher	Missouri University of Science and Technology
752	OVERVIEW OF EXPERIMENTAL HELIUM COOLING FACILITY	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	BRIJESH	YADAV	Institute for Plasma Research (IPR)
97	Tritium Transport and Extraction in Helium Systems	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Thomas	Fuerst	Idaho National Laboratory
755	Design and integration of the WCLL Tritium Extraction and Removal System into the European DEMO tokamak Reactor	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Marco	Utili	ENEA CR Brasimone
518	Measurements of neutron spatial distribution divided into specific energy regions inside a blanket mock-up	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Yasuyuki	Ogino	Graduate School of Energy Science, kyoto University
132	Optical diagnostics for high voltage tests in MITICA	Heating and Current Drive	Poster211: Chambers, Blankets, & Shields; H&CD	Daniele	Aprile	Consorzio RFX, C.so Stati Uniti 4, 35127, Padova, ITALY
161	Studies on alternative schemes for the MMC-based Acceleration Grid Power Supply of DEMO Neutral Beam Injector	Heating and Current Drive	Poster211: Chambers, Blankets, & Shields; H&CD	Francesco	Santoro	Consorzio RFX (CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA), Corso Stati Uniti 4 - 35127 Padova (Italy)

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134	Numerical and experimental assessment of the new magnetic field configuration in SPIDER	Heating and Current Drive	Poster211: Chambers, Blankets, & Shields; H&CD	Nicolò	Marconato	Dipartimento di Ingegneria Industriale (DII), Università di Padova, 35131 Padova, Italy - Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy
221	Cs evaporation in a negative ion source and Cs cleaning tests by plasma sputtering	Heating and Current Drive	Poster211: Chambers, Blankets, & Shields; H&CD	Marco	Barbisan	Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy
241	2D fluid-model for discharge analysis of the RF-driven prototype ion source for ITER NBI (SPIDER)	Heating and Current Drive	Poster211: Chambers, Blankets, & Shields; H&CD	Roman	Zagorski	National Centre for Nuclear Research, Pl-05-400 Otwock
242	RF Stray Currents in SPIDER and MITICA power circuits: model assessment and experimental results	Heating and Current Drive	Poster211: Chambers, Blankets, & Shields; H&CD	Marco	De Nardi	Consorzio RFX (CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA), Corso Stati Uniti 4 - 35127 Padova (Italy)
255	Upgrading Control Systems for Neutral Beam Power Supplies on DIII-D	Heating and Current Drive	Poster211: Chambers, Blankets, & Shields; H&CD	Carl	Pawley	General Atomics, 3550 General Atomics Ct 13-214, San Diego, CA 92121
259	On the effectiveness of SPIDER RF system improvements	Heating and Current Drive	Poster211: Chambers, Blankets, & Shields; H&CD	Alberto	Maistrello	Consorzio RFX, CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA, Corso Stati Uniti 4, 35127 Padova, Italy
135	Advanced helium cooling enhancers for First-wall Helium cooling channels.	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Fayaz	Rasheed	Oak Ridge National Laboratory
283	Development of a Collisional Radiative model of hydrogen-caesium plasmas and its application to the measurement of caesium density in SPIDER	Heating and Current Drive	Poster211: Chambers, Blankets, & Shields; H&CD	Basile	Pouradier Duteil	École Polytechnique Fédérale de Lausanne (EPFL), Swiss Plasma Center (SPC), CH-1015 Lausanne, Switzerland
302	Initial results from the SPIDER beamlet current diagnostic	Heating and Current Drive	Poster211: Chambers, Blankets, & Shields; H&CD	Alastair	Shepherd	CCFE, Culham Science Centre, Abingdon, Oxon, OX14 3DB, UK
330	Optimization of SPIDER Grounded Grid segment design	Heating and Current Drive	Poster211: Chambers, Blankets, & Shields; H&CD	Pavel	Tomsic	Consrzio RFX, Universty of Ljubjana
137	Steady State Thermo-Mechanics of Dual Cooled Lead Lithium Blanket for Fusion Nuclear Science Facility	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Sunday	Aduloju	Oak Ridge National Laboratory
225	Design of ARC reactor radiation shielding	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Stefano	Segantin	Politecnico di Torino
228	Large Component Simulation of an In-board Sector of a Dual Coolant Lead Lithium Blanket	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Dennis	Youchison	Oak Ridge National Laboratory
239	Inboard Blanket Model Design and Model Creation	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Paul	Nogradi	Oak Ridge National Laboratory
329	Study on electron beam welding process of the first wall	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Yong	Zhang	Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences, Hefei 230031, China
516	Solubility of Bi in Li-Pb eutectic alloy between 508 and 623 K	Chambers, Blankets, and Shields	Poster211: Chambers, Blankets, & Shields; H&CD	Yuto	Murata	Graduate School of Energy Science, kyoto University
49	Diagnostics for Burning Plasmas	Diagnostics Engineering and Integration	Oral221: Diagnostics Engineering and Integration	Hutch	Neilson	Princeton Plasma Physics Laboratory
284	Dose rate measurements during the tritium campaign at JET and diagnostic improvements for the upcoming deuterium-tritium experiments	Diagnostics Engineering and Integration	Oral221: Diagnostics Engineering and Integration	Nicola	Fonnesu	ENEA
46	Advantages of Bicolor thermography for W plasma facing components in ITER	Diagnostics Engineering and Integration	Oral221: Diagnostics Engineering and Integration	Dominique	Guilhem	CEA
184	Conceptual design of a scintillator based fast-ion loss detector for the Wendelstein 7-X stellarator	Diagnostics Engineering and Integration	Oral221: Diagnostics Engineering and Integration	A	Jansen van Vuuren	University of Seville

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209	Fine-structure resolved collisional radiative model for neon-argon mixture plasma	Diagnostics Engineering and Integration	Oral221: Diagnostics Engineering and Integration	Shubham	Singh Baghel	Indian Institute of Technology, Roorkee
427	A transient 3D CFD model for the simulation of forced or natural convection of the EU DEMO in-vessel components	Operation, Maintenance, Remote Handling, RAMI	Oral222: Operations and Materials	Antonio	Froio	Dipartimento Energia "Galileo Ferraris", Politecnico di Torino, Torino (TO)
415	Overview of RACE training programme to meet future demands for Remote Handling Operations Engineers	Operation, Maintenance, Remote Handling, RAMI	Oral222: Operations and Materials	Jon	Verdon	RACE
428	Boron Carbide as high energy radiation shielding material for ITER	Materials	Oral222: Operations and Materials	Bhoomi	Gajjar	ITER India, Institute for Plasma Research
271	Water chemistry assessment in fusion cooling systems: borated water for the DTT vacuum vessel	Materials	Oral222: Operations and Materials	Claudia	Gasparrini	Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy, Imperial College London, Exhibition Road, SW72AZ, London, UK
342	Nuclear analysis for the upper ports in the NB Cell in ITER	Safety and Neutronics	Poster221: Safety & Neutronics, Next Steps	Davide	Flammini	ENEA FSN
571	Parametric design of a passive neutron spectrometer for measurement of low doses from DD and DT fusion environments	Safety and Neutronics	Poster221: Safety & Neutronics, Next Steps	Ross	Worrall	UKAEA, Culham Science Centre, Abingdon, OX14 3DB, UK
593	Features of a Manual CAD-to-MCNP Model Conversion for Neutronics Analysis of the FESS-FNSF	Safety and Neutronics	Poster221: Safety & Neutronics, Next Steps	Son	Quang	University of Tennessee - Knoxville
162	Commercialisation of Fusion Power Plants	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Hanni	Lux	UKAEA
183	Boosting the efficiency of future fusion power plants by combining energy and heat production	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	P.	Cano-Megias	University of Seville
332	Improved Conceptual Design of the Beamline for the DTT Neutral Beam Injector	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Piero	Agostinetti	Consorzio RFX, CNR
356	Cost assessment of a tokamak fusion reactor using novel method for the minimum build determination	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Bong Guen	Hong	Jeonbuk National University
404	Optimization of COMPASS-U Support Structure	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Jiarong	Fang	Princeton Plasma Physics Laboratory
414	A machine-learning approach to the optimization of K-DEMO fusion reactor plasma scenario design	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Jose Carlos	Rivas	Seoul National University
440	Sensitivity Analysis of Capital Cost of European DEMO Design	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Alexander	Pearce	UKAEA, Culham Science Centre, Abingdon, OX14 3DB, UK
464	Towards DEMO Concept Selection Under Epistemic Uncertainty	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Enrique	Miralles-Dolz	University of Liverpool / UKAEA
352	Neutronics Modeling and Analysis of the FESS-FNSF using McCad	Safety and Neutronics	Poster221: Safety & Neutronics, Next Steps	Felipe	Novais	University of Tennessee - Knoxville
514	PRE-CONCEPTUAL DESIGN OF THE PORT CELL SECTION FOR THE EU DEMO EQUATORIAL EC SYSTEM	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Peter	Spaeh	Karlsruhe Institute of Technology
533	Nuclear Fusion impact on the requirements of power infrastructure assets in a decarbonized electricity system	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Umberto	Giuliani	Conzorzio RFX
543	Numerical and experimental study of the surge line on the thermal stratification characteristics in transient thermal hydraulic condition	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Weibao	Li	Institute of Plasma Physics, HFIPS, Chinese Academy of Sciences
632	Integrated computer modelling for a Dual Coolant Lead Lithium blanket in the Fusin Nuclear Science Facility	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Sergey	Smolentsev	University of California, Los Angeles
649	Development of Tritium Compatible Pumping Train for Plasma Exhausts	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Satoshi	Konishi	Kyoto University
680	FAROES: Fusion Analysis, Research, and Optimization for Energy Systems	Next Step Devices and Power Plants	Poster221: Safety & Neutronics, Next Steps	Jacob	Schwartz	Princeton University

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394	cMCNP analysis of ITER In-Vessel Conductor for Irradiation Campaign at ORNL HFIR GIF	Safety and Neutronics	Poster221: Safety & Neutronics, Next Steps	Robert	Duckworth	Oak Ridge National Laboratory
412	First Wall Damage and Heating Analysis of the FESS-FNSF via an McCad-to-MCNP Model	Safety and Neutronics	Poster221: Safety & Neutronics, Next Steps	Marina	Rizk	University of Tennessee - Knoxville
422	RAVEN/OSCAR-Fusion coupling for activated corrosion products assessments, sensitivity analyses and uncertainty quantification	Safety and Neutronics	Poster221: Safety & Neutronics, Next Steps	Nicholas	Terranova	ENEA FSN Department, Via E. Fermi 45, 00044 Frascati, Rome, Italy
425	Neutronics and shielding analyses for the DTT electronics	Safety and Neutronics	Poster221: Safety & Neutronics, Next Steps	Andrea	Colangeli	ENEA FSN
429	Monte Carlo modelling of the ARC Breeding Blanket with the Serpent code	Safety and Neutronics	Poster221: Safety & Neutronics, Next Steps	Alex	Aimetta	Dipartimento Energia “Galileo Ferraris”, Politecnico di Torino, Torino (TO)
436	Development of a novel MCNP-OSCAR Fusion interface for the 3D assessment of gamma dose due to the Activated Corrosion Products	Safety and Neutronics	Poster221: Safety & Neutronics, Next Steps	Giovanni	Mariano	ENEA FSN Department, Via E. Fermi 45, 00044 Frascati, Rome, Italy
447	Simulating radiation limits and nuclear heating on the toroidal field coils of the Fusion Nuclear Science Facility Pilot Plant	Safety and Neutronics	Poster221: Safety & Neutronics, Next Steps	Dante	Mancinelli	Princeton Plasma Physics Laboratory

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424	Evolving Fusion from the Laboratory to the Power Industry	Next Step Devices and Power Plants	Plenary3	Elizabeth	Surrey	UKAEA
86	Testing of the ITER CS Modules	Magnet Engineering	Plenary3	Nicolai	Martovetsky	LLNL/ORNL
505	Lessons learned from assembly and integrated commissioning of JT-60SA	Systems Engineering and Large Scale Integration	Plenary3	Shinichi	Moriyama	national institutes for quantum and radiological science and technology
682	STATUS OF ITER TOKAMAK ASSEMBLY	ITER Status and Progress	Oral311: ITER and Magnet Engineering	Jens	Reich	ITER Organization, Route de Vinon sur Verdon, Saint Paul Lez Durance, France
219	Design Finalization of ITER In-Vessel Coils and Manufacturing of the In-Vessel coil's conductor	ITER Status and Progress	Oral311: ITER and Magnet Engineering	Anna	Encheva	ITER Organization
363	Progress of the engineering design of TF prototype SC magnet for CFETR	Magnet Engineering	Oral311: ITER and Magnet Engineering	Jinxing	Zheng	Institute of Plasma Physics,
638	BUS Design for the Poloidal Field Coils of the NSTX-Upgrade Fusion Device	Magnet Engineering	Oral311: ITER and Magnet Engineering	dang	cai	Princeton Plasma Physics Laboratory
350	Structural Concepts for Stellarator Permanent Magnet Arrays	Magnet Engineering	Oral311: ITER and Magnet Engineering	Keith	Corrigan	Princeton Plasma Physics Laboratory
81	The Divertor Tokamk test facility: status and perspectives	Next Step Devices and Power Plants	Oral312: Next Steps and Innovation	Aldo	Pizzuto	DTT S.c. a r.l.
426	Innovative manufacturing of coil supports and winding packs for high-field stellarators	Innovative and Disruptive Technologies	Oral312: Next Steps and Innovation	Vicente	Queral	CIEMAT
584	Progress in a US-based Liquid Metal Plasma-Facing Component Design Activity for a Fusion Nuclear Science Facility	Innovative and Disruptive Technologies	Oral312: Next Steps and Innovation	Rajesh	Maingi	Princeton Plasma Physics Laboratory
612	High temperature superconductor (HTS) technology and 3D additive manufacturing (AM) for non-planar stellarator coils	Innovative and Disruptive Technologies	Oral312: Next Steps and Innovation	Robert	Granetz	MIT Plasma Science and Fusion Center
43	Seismic analysis under SL-1 of new structure support frame for ITER PF Converter System	Design for Manufacture and Advanced Manufacturing	Poster311: Advanced Manufacturing, Power & Control, Divertors	Jie	Zhang	Institute of Plasma Physics, Chinese Academy of Sciences
481	Digital Control and Power Systems for the Pegasus-III Experiment	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Michael	Bongard	University of Wisconsin-Madison
508	Analysis and calculation of the converter bridge arm losses for fusion power supply	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Zhenshang	Wang	1.The Institute of Plasma Physics, Chinese Academy of Sciences 2.University of Science and Technology of China
510	Control Strategy of Half-bridge Three-level LLC Resonant Converters with Wild Output Voltage Range	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Lili	Zhu	Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences
528	The Optimization Design for suppression CRAFT TF Magnet Power Converter Switching Overvoltage	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Ling	Zhang	Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences, Anhui Jianzhu University
540	The Full-Voltage Operation of the Acceleration Grid Power Supply for SPIDER Experiment	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Marco	Boldrin	Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy
724	Design of DC Magnet Power Supply System for ITER Static Magnetic Field Test facility	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Xi	Deng	Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences
787	Strategy and Initial Progress of Integrated Commissioning on Magnet Power Supply for Superconducting Tokamak JT-60SA	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Shoichi	Hatakeyama	National Institutes for Quantum and Radiological Science and Technology / Fusion For Energy
837	System-level analysis on the effects of seismic on reliability of Rectifier Transformer for ITER Poloidal Field Converter Unit	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Hong	Lei	Hefei Institutes of Physical Science, Chinese Academy of Sciences
844	Investigation of Test Wire Burn for the High Voltage Power Supply Breakdown	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Li	Jiang	Institute of Plasma Physics, Chinese Academy of Sciences
853	Failure analysis of linear electromagnetic actuators under disturbing magnetic field	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Rumeng	Wang	Huazhong University of Science and Technology

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176	Study on high frequency cavity oxygen-free copper electron beam welding joint	Design for Manufacture and Advanced Manufacturing	Poster311: Advanced Manufacturing, Power & Control, Divertors	Yin Long	Xing	Institute of Plasma Physics Chinese Academy of sciences; University of Science and Technology of China;
633	COMPASS-U Global Heat Balance Calculations	Divertors and High Heat Flux Components	Poster311: Advanced Manufacturing, Power & Control, Divertors	Han	Zhang	Princeton Plasma Physics Laboratory
611	Lithium vapor shielding in the presence of helium and neon impurities	Divertors and High Heat Flux Components	Poster311: Advanced Manufacturing, Power & Control, Divertors	Rabel	Rizkallah	Center for Plasma-Material Interactions, University of Illinois at Urbana-Champaign
585	Effectiveness of ELM mitigation techniques in reducing intra-ELM and inter-ELM tungsten erosion rates in DIII-D	Divertors and High Heat Flux Components	Poster311: Advanced Manufacturing, Power & Control, Divertors	Alec	Cacheris	Department of Nuclear Engineering, University of Tennessee, Knoxville, Tennessee 37996, USA
565	Numerical analysis of liquid metal MHD flow and heat transfer for open-surface Li divertor in FNSF	Divertors and High Heat Flux Components	Poster311: Advanced Manufacturing, Power & Control, Divertors	Sergey	Smolentsev	University of California, Los Angeles
556	Material Plasma Exposure eXperiment (MPEX) High Heat Flux Plasma Dump Design	Divertors and High Heat Flux Components	Poster311: Advanced Manufacturing, Power & Control, Divertors	Muhammad Aftab	Hussain	Oak Ridge National Lab
494	Development of a Flowing Liquid Metal Loop System for Lithium Distribution Study	Divertors and High Heat Flux Components	Poster311: Advanced Manufacturing, Power & Control, Divertors	Daniel	O'Dea	University of Illinois at Urbana-Champaign
248	Simulation of Liquid Lithium Divertor Geometry using SOLPS-ITER	Divertors and High Heat Flux Components	Poster311: Advanced Manufacturing, Power & Control, Divertors	Jeremy	Lore	Oak Ridge National Laboratory
175	Design and analysis of cooling structure for "V" shape divertor of fusion reactor	Divertors and High Heat Flux Components	Poster311: Advanced Manufacturing, Power & Control, Divertors	Wei	Song	Institute of Plasma Physics Chinese Academy of sciences,Hefei,China;
165	Advanced Flowing Liquid Lithium Loop Design	Divertors and High Heat Flux Components	Poster311: Advanced Manufacturing, Power & Control, Divertors	Steven	Stemmley	University of Illinois at Urbana-Champaign
327	Finite element modelling and inverse analysis of the small punch test for structure critical design	Design for Manufacture and Advanced Manufacturing	Poster311: Advanced Manufacturing, Power & Control, Divertors	Victoria	Brown	UKAEA
366	Influence of coil misalignment on magnetic surface for quasi-axisymmetric stellarator CFQS	Design for Manufacture and Advanced Manufacturing	Poster311: Advanced Manufacturing, Power & Control, Divertors	Sho	Nakagawa	National Institute for Fusion Science, National Institutes of Natural Sciences
418	Inertial Electrostatic Confinement Fusion with Liquid Cooled Electrodes	Design for Manufacture and Advanced Manufacturing	Poster311: Advanced Manufacturing, Power & Control, Divertors	Jan-Philipp	Wulfkuehler	Technische Universität Dresden
667	Simulation of welding processes of the CFETR port stub and experimental validation	Design for Manufacture and Advanced Manufacturing	Poster311: Advanced Manufacturing, Power & Control, Divertors	Xiaowei	Xia	Shenzhen University
751	CFD Comparison between Additively Manufactured Ribbed Tubes and Original Designs for Helium Flow Loop Test Section	Design for Manufacture and Advanced Manufacturing	Poster311: Advanced Manufacturing, Power & Control, Divertors	Monica	Gehrig	Missouri University of Science and Technology
63	Design of the electrical power system for Quasi-axisymmetric Stellarator CFQS	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Hiroyuki	Tanoue	National Institute for Fusion Science, National Institutes of Natural Sciences
460	Combined capacitor-resistor energy transfer system to increase plasma current in RFX-mod2	Power and Control	Poster311: Advanced Manufacturing, Power & Control, Divertors	Francesco	Lunardon	Consorzio RFX
600	SPIDER, the negative ion source prototype for ITER: first operations with caesium	Heating and Current Drive	Oral321: Heating and Current Drive	Gianluigi	Serianni	1Consorzio RFX, CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA, Corso Stati Uniti 4, 35127 Padova, Italy
263	Upgrade of the neutral beam injection system on EAST	Heating and Current Drive	Oral321: Heating and Current Drive	Yahong	Xie	Institute of Plasma Physics,Chinese Academy of Sciences
359	Tritium operation of the JET neutral beam systems and Tritium NBI power calculations	Heating and Current Drive	Oral321: Heating and Current Drive	damian	king	UKAE
238	SPIDER beam homogeneity characterization through visible cameras	Heating and Current Drive	Oral321: Heating and Current Drive	Margherita	Ugoletti	Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy
260	First characterization of the full scale negative ion source SPIDER in caesium by Beam Emission Spectroscopy	Diagnostics Engineering and Integration	Oral321: Heating and Current Drive	Riccardo	Agnello	École Polytechnique Fédérale de Lausanne (EPFL), Swiss Plasma Center (SPC), CH-1015 Lausanne, Switzerland

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407	Recent EAST experimental results and system upgrades in support of long-pulse steady-state plasma operation	Power and Control	Oral322: System Engineering and Large Scale Integration	Yuntao	Song	Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences
576	Systems Engineering and Large-scale integration on the STEP programme	Systems Engineering and Large Scale Integration	Oral322: System Engineering and Large Scale Integration	Steven	Killingbeck	UKAEA (Rolls-Royce)
697	Benefits of using model-based systems engineering in the W7-X project	Systems Engineering and Large Scale Integration	Oral322: System Engineering and Large Scale Integration	Erik	Scharff	Max Planck Institute for Plasma Physics
71	Use of Commercial Technology for RPS Roughing Pumps	Systems Engineering and Large Scale Integration	Oral322: System Engineering and Large Scale Integration	Charles	Smith	US ITER (Oak Ridge National Lab)
476	Application of the PROCESS 0-D systems code to a spherical tokamak pilot plant design using HTS coils	Systems Engineering and Large Scale Integration	Oral322: System Engineering and Large Scale Integration	Charles	Swanson	Princeton Plasma Physics Laboratory
16	Experimental study of sub-cooled flow boiling with one-side heated NACA0020 Airfoil channel for Divertor cooling	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Ji Hwan	Lim	Pohang University of Science and Technology
570	Effects of the Position of Dielectric Barrier on Streamer Discharge in a Needle/Plane Oil Gap Geometry	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Mona	Ghassemi	Steven O. Lane Junior Faculty Fellow, College of Engineering Faculty Fellow, and Assistant Professor
743	Engineering challenges and construction status of the Wisconsin HTS Axisymmetric Mirror (WHAM)	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	John	Wallace	University of Wisconsin-Madison
794	Tabletop Plasma Focus Device of Few Joules to Study Materials for Nuclear Fusion Reactors	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Jalaj	Jain	Research Center on the Intersection in Plasma Physics, Matter and Complexity, P2mc, Comisión Chilena de Energía Nuclear, Casilla 188-D, Santiago, Chile
801	Assessment of Liquid Immersion Blanket concept	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Kevin	Woller	MIT Plasma Science and Fusion Center
820	Flame heating of a plasma mm-sized bubbles reactor as an alternative method to fusion power generation	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Ahmed	Hala	Gaseous Electronics, LLC
101	Design and Analysis of Multi-axis Automatic Control System for CRAFT TF Coil Winding Line	Magnet Engineering	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Zhaohui	Yan	Institute of Plasma Physics, Hefei Institutes of Physical Science Chinese Academy of Sciences, Hefei,China; University of Science and Technology of China, Hefei,China
103	Control Scheme Design and Optimization for Turn Insulation Automatic Wrapping System of CRAFT TF Coil	Magnet Engineering	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Jian	He	Institute of Plasma Physics, Hefei Institutes of Physical Science Chinese Academy of Sciences, Hefei,China; University of Science and Technology of China, Hefei,China
205	Recent Progress of Super-X Magnet for CRAFT Project in China	Magnet Engineering	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Yi	Shi	ASIPP
392	Innovative Irradiation Experiment to Study ITER In-Vessel Conductor	Magnet Engineering	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Robert	Duckworth	Oak Ridge National Laboratory
406	Development of high-temperature superconducting CORC® cables and magnets for compact fusion machines	Magnet Engineering	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Danko	van der Laan	Advanced Conductor Technologies
20	Heat transfer enhancement by applying baffle between fins of hypervapotron cooling channel for fusion reactor application	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Ji Hwan	Lim	Pohang University of Science and Technology
467	Development of low-resistance CORC®-CICC joints for use in demountable magnets and their performance up to 10 kA within a background magnetic field of up to 8 T	Magnet Engineering	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Jeremy	Weiss	Advanced Conductor Technologies
546	Combined Normal and Disruption, Electromagnetic Transient, Thermal, and Structural Analysis of COMPASS Upgrade	Magnet Engineering	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	peter	Titus	Princeton Plasma Physics Laboratory

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655	The first cool down operation of JT-60SA cryogenic system	Magnet Engineering	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Fukui	Kazuma	national institute for quantum and radiological science and technology
840	Frequency Characteristic Analysis of the Large-scale High-intensity Magnetic Field Immunity Test Coil System Based on a Speeding-up PEEC Method	Magnet Engineering	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Yiwei	Lu	Huazhong University of Science and Technology
547	Monolithic Additive Manufacturing of Lower Hybrid Current Drive Launchers from GRCop-84 Copper Alloy Using Laser Powder Bed Fusion	Heating and Current Drive	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Andrew	Seltzman	MIT Plasma Science and Fusion Center
538	Activities of gyrotron development at Kyoto Fusioneering in Japan	Heating and Current Drive	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Keishi	Sakamoto	Kyoto Fusioneering Ltd.
572	Impact of NBI and Plasma Shaping on CD Efficiency and Fast Ion Losses in FNS-ST	Heating and Current Drive	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Eugenia	Dlougach	NRC Kurchatov Institute
530	Investigation of negative ion energy distribution and extraction mechanism with a compact retarding field energy analyser in a large filament-arc source for neutral beam injectors	Heating and Current Drive	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Emanuele	Sartori	Consorzio RFX, CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA, Corso Stati Uniti 4, 35127 Padova, Italy
520	Radio Frequency Generators Based on Solid State Amplifiers for the NBTF and ITER projects	Heating and Current Drive	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Loris	Zanotto	Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy
511	Electron scraping and electron temperature reduction by bias electrode at the extraction region of a large negative ion source	Heating and Current Drive	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Valeria	Candeloro	University of Padua
138	Designing a power generation system utilizing plasma FCG theory for PuFF	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Nathan	Schilling	University of Alabama in Huntsville
186	An innovative Hypervapotron heat sink structure: Heat transfer Enhancement through mountain structures between Fins	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Ji Hwan	Lim	Pohang University of Science and Technology
211	Evaluation of alpha particle emission rate due to p-11B fusion reaction in the Large Helical Device	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Kunihiro	Ogawa	National Institute for Fusion Science
274	Double poloidal field system with superconducting and conventional copper coils for induced high loop voltage: a new concept and a feasibility study for a RFP FFHR	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Roberto	Piovan	Consorzio RFX
402	Accelerating data-driven disruption prevention and avoidance models using GA TokSearch	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Brian	Sammuli	General Atomics, PO Box 85608, San Diego, CA, USA
489	Design of a Novel Variable Geometry Divertor for Tokamak Reactors	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Alexander	Nagy	Princeton Plasma Physics Laboratory
561	Prediction of Breakdown in Air: A Complete Plasma Model from Discharge Initiation to Flashover	Innovative and Disruptive Technologies	Poster321: Innovative and Disruptive Technologies, Magnets, H&CD,	Mona	Ghassemi	Steven O. Lane Junior Faculty Fellow, College of Engineering Faculty Fellow, and Assistant Professor
403	ECRH Gyrotrons with Waveguide Output	Heating and Current Drive	Oral411: Heating & Current Drive	Jeff	Neilson	Calabazas Creek Research,Inc.

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866	SOFE Awards	Organization	Plenary4	Kevin	Freudenberg	ORNL
29	The Impact of the evolving Tokamak Physics Basis on the Design of EU-DEMO	Next Step Devices and Power Plants	Plenary4	Hartmut	Zohm	Max Planck Institute for Plasma Physics
174	HTS Magnet Development for Spherical Tokamaks	Next Step Devices and Power Plants	Plenary4	Robert	Slade	Tokamak Energy Ltd
517	Initial experimental results with 3D ICRF antenna in EAST	Heating and Current Drive	Oral411: Heating & Current Drive	hua	yang	Institute of Plasma Physics, Chinese Academy of Sciences
195	Development of Dielectric-Lined Waveguides for THz Transmission	Heating and Current Drive	Oral411: Heating & Current Drive	Kyle	Thackston	Oak Ridge Associated Universities
220	Near real-time streaming analysis of ECE imaging data using HPC resources	Diagnostics Engineering and Integration	Oral411: Heating & Current Drive	Ralph	Kube	Princeton Plasma Physics Laboratory
544	Heat transfer analysis of the in-vessel components for EAST in the baking process	Heating and Current Drive	Oral411: Heating & Current Drive	Zhe	Liu	Institute of Plasma Physics, HFIPS, Chinese Academy of Sciences
437	Progress toward Reconstruction of NSTX-U and Re-start of Operations	Next Step Devices and Power Plants	Oral412: Next Step Devices	John	Galayda	Princeton
732	Fusion Pilot Plant performance and the role of a Sustained High Power Density tokamak	Next Step Devices and Power Plants	Oral412: Next Step Devices	Jonathan	Menard	Princeton Plasma Physics Laboratory
521	Overview of Kyoto Fusioneering's SCYLLA© (Self-Cooled Yuryo Lithium-Lead Advanced) blanket for commercial fusion reactors	Next Step Devices and Power Plants	Oral412: Next Step Devices	Richard	Pearson	Kyoto Fusioneering Ltd.
659	Technical Assessment of Byproduct Material Licensing Pathway for Commercial Fusion Facilities	Next Step Devices and Power Plants	Oral412: Next Step Devices	Robert	White	MIT
798	Conceptual Design of Heat Extraction Test Reactor Systems	Next Step Devices and Power Plants	Oral412: Next Step Devices	Piyush	Prajapati	Institute for Plasma Research (IPR)
234	Using SPICE to Locate Ground Faults on the DIII-D Tokamak	Operation, Maintenance, Remote Handling, RAMI	Poster411: Operations, PFCs, Disruption Mitigation	P. James	Byrne	General Atomics
453	Assessment of high-Z impurity concentration and transport in the metallic environment of the WEST Experiment based on integrated multi-diagnostic interpretive modeling workflow.	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	Alex	GROSJEAN	University of Tennessee - Knoxville
515	Novel Surface Finishing Approach for Additively Manufactured RF Components for Fusion Reactor Applications	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	Agustin	Diaz	REM Surface Engineering
532	A flat-type tungsten guard limiter for EAST 4.6 GHz lower hybrid waveguide antennas	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	Lei	Yin	Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences
613	Wettability of Porous Tungsten with Liquid Lithium for Use in Plasma Facing Components	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	Sara	Kolecki	The Pennsylvania State University
616	An in-situ and in-vivo characterization facility for Ion-Gas-Neutral Interactions with Surfaces (IGNIS-2) under fusion-relevant vacuum conditions	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	Ethan	Kunz	The Pennsylvania State University
628	Laser treatments and testing to increase the infrared emissivity of materials for first wall of nuclear fusion machines	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	Mauro	Dalla Palma	Consorzio RFX (CNR, ENEA, INFN, Università degli Studi di Padova, Acciaierie Venete SpA), Corso Stati Uniti 4, 35127 Padova, Italy
652	The impact of lithium surface conditioning on the scrape-off layer and fuel recycling in the Lithium Tokamak eXperiment-β	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	Anurag	Maan	Princeton Plasma Physics Laboratory, NJ 08543, Princeton, United States of America
178	Optimization of non-axisymmetric ELM control coils of the DTT experiment based on toroidal plasma response calculations	Disruption Mitigation and Control	Poster411: Operations, PFCs, Disruption Mitigation	Domenico	Abate	Consorzio RFX (CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA), C.so Stati Uniti 4, 35127, Padova, Italy

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278	Design considerations for an Electromagnetic Particle Injector for Fast Time Response Disruption Mitigation in Tokamaks	Disruption Mitigation and Control	Poster411: Operations, PFCs, Disruption Mitigation	Roger	Raman	University of Washington
369	3D Electromagnetic Model of the WEST tokamak sector during plasma disruptions	Disruption Mitigation and Control	Poster411: Operations, PFCs, Disruption Mitigation	Silvia	Garitta	CEA, IRFM, F-13108, Saint-Paul-Lez-Durance, France
243	Design and Optimization for Test Platform of High Payload Transporter Joint for a Tokamak	Operation, Maintenance, Remote Handling, RAMI	Poster411: Operations, PFCs, Disruption Mitigation	Yan	Wang	Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences
431	Electromagnetic VDE and disruption analysis in the SMART tokamak	Disruption Mitigation and Control	Poster411: Operations, PFCs, Disruption Mitigation	Alessio	Mancini	Department of Atomic, Molecular and Nuclear Physics, University of Seville, Seville, Spain
471	Neural network-based confinement mode prediction for real-time disruption avoidance.	Disruption Mitigation and Control	Poster411: Operations, PFCs, Disruption Mitigation	David	Orozco	General Atomics, PO Box 85608, San Diego, CA, USA
548	A Prototype High-Voltage Pulsed Power Supply for Control of the ITER Shattered Pellet Injection System Flyer Plate Valve	Disruption Mitigation and Control	Poster411: Operations, PFCs, Disruption Mitigation	Nance	Ericson	Oak Ridge National Laboratory
245	Draining of primary cooling circuits in actively cooled reactor components: modelling the Electrostatic Residual Ion Dump of the ITER Neutral Beam Test Facility	Operation, Maintenance, Remote Handling, RAMI	Poster411: Operations, PFCs, Disruption Mitigation	Matteo	Zaupa	Consorzio RFX (CNR, ENEA, INFN, Università degli Studi di Padova, Acciaierie Venete SpA), Corso Stati Uniti 4, 35127 Padova, Italy
728	Ion reflection coefficient of Carbon and Tungsten surfaces in Deuterium and Tritium Plasmas	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	Sundar Prasad	Paudel	Tribhuvan University
344	JET Remote Handling Systems, Operations Roles and Operators Training	Operation, Maintenance, Remote Handling, RAMI	Poster411: Operations, PFCs, Disruption Mitigation	Ipek	Caliskanelli	UKAEA
449	ITER Test Blanket Module – Engineering investigations for port Cell equipment replacement	Operation, Maintenance, Remote Handling, RAMI	Poster411: Operations, PFCs, Disruption Mitigation	JEAN-PIERRE	FRICONNEAU	CEA, IRFM, F-13108, Saint-Paul-Lez-Durance, France
21	Two-phase pressure drop analysis with one-side heated Smooth channel for Fusion Reactor Plasma Facing Component Application	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	Ji Hwan	Lim	Pohang University of Science and Technology
90	EU DEMO plasma-facing component design under material phase change	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	M.L.	Richiusa	University of Oxford
163	Lithium Compatibility with Metallic and Coated Substrates for Nuclear Fusion Applications	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	Cody	Moynihan	University of Illinois at Urbana-Champaign
200	A Path to 30 MW/m^2 Helium Cooling of Plasma Facing Components	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	James	Bramble	University of Illinois Urbana Champaign
368	Study on the heat absorption coefficient of tungsten as the plasma facing material for the upgraded EAST lower divertor	Plasma Facing Materials and Surface Engineering	Poster411: Operations, PFCs, Disruption Mitigation	Nanyu	Mou	Institute of plasma physics, Hefei Institute of physical sciences, Chinese Academy of Sciences
88	Design of the COMPASS Upgrade tokamak	MFE, MTF and IFE Alternate Concepts	Oral421: MFE, MTF and IFE Alternates	Petr	Vondracek	Institute of Plasma Physics of the Czech Academy of Sciences
216	Operation and Facility Improvements at the DIII-D National Fusion Facility	MFE, MTF and IFE Alternate Concepts	Oral421: MFE, MTF and IFE Alternates	George	Sips	General Atomics
286	Accelerator Based Fusion Reactor	MFE, MTF and IFE Alternate Concepts	Oral421: MFE, MTF and IFE Alternates	Kehfei	Liu	University of Kentucky
310	Vacuum vessel and divertor design and results of 16 month operation of the Trenta Magneto-Inertial Fusion prototype	MFE, MTF and IFE Alternate Concepts	Oral421: MFE, MTF and IFE Alternates	David	Kirtley	Helion Energy
155	Small Angle Slot Diverter Installation Techniques and Improvements on DIII-D	Divertors and High Heat Flux Components	Oral422: Divertors and High Heat Flux	Karl	Schultz	General Atomics

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411	Characterizing divertor detachment in the DIII-D Small-Angle Slot Divertor through surface heat flux measurements	Divertors and High Heat Flux Components	Oral422: Divertors and High Heat Flux	Jun	Ren	University of T
61	The EAST lower tungsten divertor design, development, installation and operation	Divertors and High Heat Flux Components	Oral422: Divertors and High Heat Flux	Damao	Yao	Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences
496	R&D progress of a large superconducting linear plasma device for divertor material testing	Divertors and High Heat Flux Components	Oral422: Divertors and High Heat Flux	Haishan	Zhou	Institute of Plasma Physics, HFIPS, Chinese Academy of Sciences
594	High Heat Flux Exposures of Tungsten and Tungsten Heavy Alloy Materials for Plasma Facing Components for SPARC	Divertors and High Heat Flux Components	Oral422: Divertors and High Heat Flux	Travis	Gray	Oak Ridge National Laboratory
816	China's Progress on Hot Helium Leak Test of ITER Shield Blocks	ITER Status and Progress	Poster421: Diagnostics	Kun	Wang	China International Nuclear Fusion Energy Program Execution Center
282	Installation of a PPPL impurity powder dropper on WEST for real time vacuum vessel conditioning during long plasma discharges	Diagnostics Engineering and Integration	Poster421: Diagnostics	Philippe	Moreau	CEA, IRFM, F-13108, Saint-Paul-Lez-Durance, France
298	Digital Holography measurement of surface erosion features due to ELM-like events generated by a plasma arc	Diagnostics Engineering and Integration	Poster421: Diagnostics	Theodore	Biewer	Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831, USA
300	Developments and challenges in the design of the ITER Diagnostic Residual Gas Analyzer	Diagnostics Engineering and Integration	Poster421: Diagnostics	C.Christopher	Klepper	Oak Ridge National Laboratory
316	Implementation of a Portable ¬¬Diagnostic Package on the Helicity Injected Torus - Steady Inductive Upgrade (HIT-SIU)	Diagnostics Engineering and Integration	Poster421: Diagnostics	Nischal	Kafle	Oak Ridge National Laboratory
318	Study of LaB6-Cathodes in Neutral Pressure Gauges for Fusion Reactors	Diagnostics Engineering and Integration	Poster421: Diagnostics	Bartholomew	Jagielski	Max Planck Institute for Plasma Physics
387	Real-time magnetic sensor anomaly detection and reconstruction using autoencoder neural networks on the DIII-D tokamak	Diagnostics Engineering and Integration	Poster421: Diagnostics	Himank	Anand	General Atomics, 3550 General Atomics Ct 13-214, San Diego, CA 92121
488	Temperature Programmed Desorption diagnostic for SPIDER Cs operations	Diagnostics Engineering and Integration	Poster421: Diagnostics	Michele	Fadone	Consorzio RFX, C.so Stati Uniti 4, 35127, Padova, ITALY
509	Development of a triple Langmuir probe for plasma characterization in SPIDER	Diagnostics Engineering and Integration	Poster421: Diagnostics	Valeria	Candeloro	University of Padua
569	Langmuir Probe Measurements in HIDRA	Diagnostics Engineering and Integration	Poster421: Diagnostics	Sam	Smith	University of Illinois Urbana-Champaign
595	Imaging Neutral Particle Analyzer Engineering Design and installation for the ASDEX Upgrade Tokamak	Diagnostics Engineering and Integration	Poster421: Diagnostics	Javier	Garcia-Dominguez	Department of Atomic, Molecular and Nuclear Physics, University of Seville, Seville, Spain
351	Progress of ITER Correction Coil and Magnet Feeder PAs in ASIPP	ITER Status and Progress	Poster421: Diagnostics	Kun	Lu	Institute of Plasma Physics, Chinese Academy of Sciences
614	Validation of Fiber Optic Bolometers as Vacuum Pressure Sensors	Diagnostics Engineering and Integration	Poster421: Diagnostics	S.	Lee	University of Tennessee-Knoxville
615	Shorted Turn Protection" (STP) - A Realtime Protection System for NSTX-U	Diagnostics Engineering and Integration	Poster421: Diagnostics	Frank	Hoffmann	Princeton Plasma Physics Laboratory
626	Design and manufacturing of fiber optic sensors for the ITER neutral beam test facility	Diagnostics Engineering and Integration	Poster421: Diagnostics	Mauro	Dalla Palma	Consorzio RFX (CNR, ENEA, INFN, Università degli Studi di Padova, Acciaierie Venete SpA), Corso Stati Uniti 4, 35127 Padova, Italy
669	Nuclear analyses for the assessment of the nuclear loads on the ITER Radial Neutron Camera In-Port system and evaluation of its measurement performances	Diagnostics Engineering and Integration	Poster421: Diagnostics	Fabio	Moro	ENEA, Department of Fusion and Nuclear Safety Technology, I-00044, Frascati (Rome), Italy

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797	Determination of eddy-current distribution in electrically isolated vessel section of ADITYA-U tokamak	Diagnostics Engineering and Integration	Poster421: Diagnostics	Rohit	Kumar	Institute for Plasma Research, Bhat, Gandhinagar 382428, Gujarat, India.
830	Thermal interlayers for ITER bolometer cameras	Diagnostics Engineering and Integration	Poster421: Diagnostics	Florian	Penzel	ITER Organization, Route de Vinon-sur-Verdon, CS 90 046, 13067 St Paul Lez Durance Cedex – France
42	Installation design and integration of Poloidal Field Converter units for ITER	Systems Engineering and Large Scale Integration	Poster421: Diagnostics	Zhengyi	HUANG	Institute of Plasma Physics, Chinese Academy of Sciences
498	Engineering Integration Challenges for The NSTX-U Recovery Project	Systems Engineering and Large Scale Integration	Poster421: Diagnostics	Yuhu	Zhai	PPPL
661	Structural design and safety analysis of EAST baking piping system	Systems Engineering and Large Scale Integration	Poster421: Diagnostics	Lidong	Yao	Institute of Plasma Physics, HFIPS, Chinese Academy of Sciences
70	Upgrade of the magnetic fault detection system of RFX-mod2	Diagnostics Engineering and Integration	Poster421: Diagnostics	Matteo	Bonotto	Conso
122	Structural Steel Supports for Diagnostics Systems	Diagnostics Engineering and Integration	Poster421: Diagnostics	Marc-André	de Looz	Princeton Plasma Physics Laboratory
131	Design of wiring harness for RFXmod2	Diagnostics Engineering and Integration	Poster421: Diagnostics	Daniele	Aprile	Consorzio RFX, C.so Stati Uniti 4, 35127, Padova, ITALY
133	Numerical calculation of pick-up coils frequency response as a useful tool for local magnetic field sensors design	Diagnostics Engineering and Integration	Poster421: Diagnostics	Nicolò	Marconato	Dipartimento di Ingegneria Industriale (DII), Università di Padova, 35131 Padova, Italy - Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy
139	Custom thermocouple input module for sensors on the Grounded Grid of SPIDER	Diagnostics Engineering and Integration	Poster421: Diagnostics	Matteo	Brombin	Consorzio RFX, C.so Stati Uniti 4, 35127, Padova, ITALY
150	Design and analysis of halo current diagnostic for RFX-mod2	Diagnostics Engineering and Integration	Poster421: Diagnostics	Matteo	Bonotto	Consorzio RFX, CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA, Corso Stati Uniti 4, 35127 Padova, Italy
222	STRIKE heat flux reconstruction by neural networks: application to the experimental results	Diagnostics Engineering and Integration	Poster421: Diagnostics	Rita Sabrina	Delogu	Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy
830	Thermal interlayers for ITER bolometer cameras	Diagnostics Engineering and Integration	Poster421: Diagnostics	Florian	Penzel	ITER Organization, Route de Vinon-sur-Verdon, CS 90 046, 13067 St Paul Lez Durance Cedex – France
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