

27th IEEE Symposium on Fusion Engineering

Sunday, 4 June 2017 - Thursday, 8 June 2017

Marriott Shanghai City Center

Programme

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Sunday 04 June 2017

MINI-COURSE 1 - Plasma Diagnostics

Meeting Room 1 (4 Jun 2017, 08:30-17:30)

MINI-COURSE 2 - Plasma-Material Interactions: Fundamentals and Applications

Meeting Room 2 (4 Jun 2017, 08:30-17:30)

Welcome Reception - Junior Ballroom (18:00-20:30)

Monday 05 June 2017

M.PLN: Plenary M - Grand Ballroom (5 Jun 2017, 08:00-10:10)

TIME	TITLE	PRESENTER
08:00	Opening Remarks	Dr. NEILSON, George "Hutch" (Princeton Plasma Physics Laboratory)
08:10	Opening Remarks	Prof. LI, Jiangang (Institute of Plasma Physics, Chinese Academy of Sciences)
08:20	Welcome Message	LUO, Delong (Director, ITER-China)
08:35	Conference Logistics	Dr. NEILSON, George "Hutch" (Princeton Plasma Physics Laboratory)
08:40	Technical Program Overview	HUMRICKHOUSE, Paul (Idaho National Laboratory)
08:50	Overall Status of the ITER Project	Dr. BIGOT, Bernard (ITER Organization)
09:30	CFETR-New Design and R&D Activities	WAN, Yuanxi (USTC/ASIPP)

Break (10:10-10:40)

M.OA1: Experimental Devices I - Salon 1 (5 Jun 2017, 10:40-12:40)

TIME	TITLE	PRESENTER
10:40	Overview of NSTX-U Progress	Dr. MAINGI, Rajesh (PPPL)
11:00	Technical Issues toward the Steady State Operation at KSTAR	Dr. KWAK, Jong-Gu (NFRI)
11:20	Status of the ITER Vacuum Vessel Manufacturing	Dr. CHOI, C.H. (ITER Organization)
11:40	MAST Upgrade Divertor Facility: A Test Bed for Novel Divertor Solutions	Dr. MORRIS, William (CCFE, UKAEA)
12:00	Progress of Interface Design between Test Cell and Lithium Systems in IFMIF-DONES	Dr. TIAN, Kuo (Institute for Neutron Physics and Reactor Technology, Karlsruhe Institute of Technology)
12:20	Development and Application of High Intensity D-T Fusion Neutron Generator HINEG	LIU, Chao (Key Laboratory of Neutronics and Radiation Safety, Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences)

M.OA2: Divertors and High Heat Flux Components - Salon 2 (5 Jun 2017, 10:40-12:40)

TIME	TITLE	PRESENTER
10:40	Design and Test of W7-X Water-Cooled Divertor Scraper	Dr. BOSCARY, Jean (Max Planck Institute for Plasma Physics)
11:00	Modeling and Experimental Validation of Physics Enabled by W7-X Scraper Element Divertor Components	Dr. LORE, Jeremy (Oak Ridge National Laboratory)
11:20	Status of the ITER Cooling Water System Design	DELL'ORCO, Giovanni (ITER IO)
11:40	Virtual Engineering of a Fusion Reactor: Application to Divertor Design, Manufacture and Testing	Dr. BARRETT, Thomas R. (CCFE, Culham Science Centre, United Kingdom)
12:00	Experimental and Numerical Investigation on Anti-Fatigue and Anti-Thermal Shock Performance of the Divertor First Wall	HUANG, Shenghong (University of Science and Technology of China)
12:20	<i>Adjourn</i>	

M.OA3: Inertial Fusion Engineering and Alternate Concepts - Salon 3 (5 Jun 2017, 10:40-12:40)

TIME	TITLE	PRESENTER
10:40	Status of the ICF program in China	ZHENG, Wanguo (Research Center of Laser Fusion, CAEP)
11:00	Magnetized Target Fusion at General Fusion	Dr. LABERGE, Michel (General Fusion)
11:20	Properties of a Clean and Economic Boron Laser Fusion Reactor	Prof. HORA, Heinrich (University of NSW Sydney)
11:40	Fusion Chamber Dynamics and First Wall Response in a Z-Pinch Driven Fusion-Fission Hybrid Power Reactor (Z-FFR)	Dr. QI, Jianmin (Institute of Nuclear Physics and Chemistry, China Academy of Engineering Physics)
12:00	Experimental results from the SPECTOR device at General Fusion	Dr. HOWARD, Stephen (General Fusion)
12:20	Radiation Safety Design for the North Pole Neutron Time-of-Flight System at the NIF	Dr. KHATER, Hesham (Lawrence Livermore National Laboratory)

Lunch - Shanghai City Bistro / EZO Restaurant (12:40-13:40)

M.POS: Poster Session M - Junior Ballroom (5 Jun 2017, 13:40-15:40)

BOARD	TITLE	PRESENTER
1	Safety Analysis of Helium Cooled Ceramic Breeder Test Blanket System	Dr. JIA, Jiangtao (Key Laboratory of Neutronics and Radiation Safety, Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences)
2	Experimental Study on Natural Circulation Heat Transfer of Square Channel in Water Cooled Blanket	BAO, Hui (Institute of Plasma Physics, Chinese Academy of Sciences)
3	Li ₂ Be ₂ O ₃ pebbles prepared via sol-gel method: Multifunctional blanket material designed to both tritium breeder and neutron multiplier	Dr. LU, Wei (Institute of Applied Physics, Army Officer Academy)
4	WCLL Blanket Module Structure Variation Influence on Neutron Activation Inventories	TIDIKAS, Andrius (Lithuanian Energy Institute)
5	Transverse velocity effect on Hunt's flow	WANG, Hao (School of Mechanical Engineering, Hangzhou Dianzi University, Hang Zhou, China)
6	The Design of DRAGON-V Loop for Key Technique Verification of Liquid PBLI Blanket	Dr. ZHU, Zhiqiang
7	Study on considerable defects introduced in tritium breeding material Li ₂ TiO ₃ by annealing in vacuum	Dr. QI, Qiang (Institute of Plasma Physics, Chinese Academy of Sciences)
9	The numerical simulation for the heat transfer enhancement experiments of the HCCB-TBM first wall	CHENG, Desheng
10	TEA-CO ₂ Laser Pulse Shaping Using a Pre-Ionized Plasma Technique to Produce Nanosecond Laser Pulses	Dr. GASMI CHERIFI, Taieb (Division of Science & Engineering; Saint Louis University)
11	Current profile measured by the motional Stark effect polarimeter in the HL-2A tokamak	CHEN, Wenjin
12	Lessons learned on design, manufacturing and commissioning of IRVIS endoscopes prototypes for W7-X divertor temperature monitoring	CHAUVIN, Didier (CEA)
13	The measurement of visible bremsstrahlung emissivity profiles on HL-2A	LIANG, Liu (Southwestern Institute of Physics)
14	A Method for Diagnosis of Current in PF Magnet based on Inversion of Measured Magnetic Field	HUANG, Zichu
15	Mechanical Designs for High Magnetic Field Tests for ITER Applications	Dr. DELGADO-APARICIO, Luis (Princeton Plasma Physics Laboratory)
16	Thermal Strain Measurement of EAST Tungsten Divertor Module with Bare FBG Sensors	WANG, Xingli (Institute of Plasma Physics, Chinese Academy of Sciences)
17	EM Analysis of ITER Diagnostics Upper Port Plugs 14 (US port) and its in-Port components during Plasma Disruptions	FEDER, Russell (PPPL)

BOARD	TITLE	PRESENTER
18	Development of primary vacuum windows for ITER diagnostics	Dr. UDINTSEV, Victor (ITER Organization)
19	Real-time Two-dimensional Optical Polarization Properties of the Fusion Reactor First Mirror Based on Active Polarized Beams	QI, Junli (University of Science and Technology of China)
20	Improvement of the plasma current density profile by the polarimeter/interferometer system on the EAST tokamak	ZHU, Xiang
21	Preliminary Design for Diagnostic Port Integration at ITER Upper Port #18	PAK, Sunil (National Fusion Research Institute)
22	Spectroscopic diagnostics for negative ion source test facility at ASIPP	LIANG, Lizhen (ASIPP)
23	Thermal Analysis and Test for the Mockup of ITER Radial X-Ray Camera	GE, Jian (ASIPP)
24	Multiple laser system for high resolution Thomson scattering diagnostics on the EAST tokamak	Dr. HAN, Xiaofeng
25	Improving accuracy of interceptive current measurement for use in IFMIF/EVEDA accelerator	Dr. HIRATA, Yosuke (National Institute for Quantum and Radiological Science Technology, IFMIF Accelerator Group)
26	Divertor heat flux study of H-mode with NBI in EAST	Mrs. SHI, Bo (Institute of Applied Physics of AOA)
27	The reliability design of CFETR divertor	Dr. CAO, Lei (Institute of Plasma Physics, Chinese Academy of Science)
28	RAMI analysis for PFCs of EAST divertor	ZHANG, Yang
29	Upgraded Design of EAST Lower Divertor	ZI, Pengfei (Institute of Plasma Physics Chinese Academy of Sciences)
30	Research and Analysis on the Compatible Structures of the CFETR Divertor Based on the Remote Handling Requirements	Dr. DAI, Huaichu (ASIPP, Univ. of Science & Technology of China)
31	Final Design and Fabrication of the TDU Scrapper for Wendelstein 7-X	LOESSER, G. Douglas (Princeton Plasma Physics Laboratory)
32	Numerical Simulation Research on the New Design Scheme of the EAST Divertor using Multi-physics Coupling Method	Dr. LI, Lei (Institute of Plasma Physics, Chinese Academy of Sciences)
33	Tokamak Size Scaling	Prof. LI, Ge (Inst. of Plasma Physics, CAS)
34	Numerical simulation of particle dynamics in the magnetic mirror	WANG, Hui (Army Officer Academy)

BOARD	TITLE	PRESENTER
35	Thermal & Mechanical Analysis of the Wendelstein 7-X Cryo-Vacuum Pump Plug-In	Dr. WANG, Zhongwei
36	Conceptual Design of the Torus Cryopump for CFETR	Dr. CHEN, Chen
37	The feasibility of application the existing IVVS concept to CFETR	ZHOU, ZIBO (CASIPP)
38	ITER PF6 Dummy Double Pancake Winding	Dr. WEN, Wei (ASIPP)
39	Electronic Transport Properties of NbTi in Cooper Matrix Superconducting Wires for ITER Applications	Mrs. NICULESCU, Alina Elena (ICSI Rm. Valcea, Romania)
40	NSTX-U In-Vessel Control Coils Design Concept	ATNAFU, Neway (Princeton University)
41	Test upgrade for ITER HTS current leads series production	Dr. LIU, Chenglian (Institute of Plasma Physics, CAS)
42	Performance Test of CICC Joint for ITER Correction Coil	Dr. MA, Yuanyuan
43	Design of Ground Plane of NSTX-U Ohmic Heating Coil	QUE, Weiguo (Princeton Plasma Physics Laboratory)
44	Design and Analysis of the CFETR TF Coils with REBCO tapes	Dr. REN, Yong
45	Optimized Shape of TF Coil	ZHAOLIANG, Wang
46	Insulation Systems for the ITER Central Solenoid Modules	NORAUSKY, Nikolai (General Atomics)
47	Test Results of ITER 52-kA HTS Current Lead Prototypes	LIU, Chenglian (Institute of Plasma Physics, CAS)
48	A Rapid Non-Destructive Inspection Method Applied to EAST Lower Divertor by IR Thermography Technique	LIU, Yanwei (Institute of Plasma Physics, Chinese Academy of Sciences)
49	The forming die design and experimental research of CFETR Vacuum Vessel shells	HUANG, Yuncong (Southwestern Institute of Physics)
50	The enhancement of high temperature deformation resistance for V-4Cr-4Ti alloys	Dr. ZHENG, Pengfei (Southwestern Institute of Physics)
51	Study on the effect of Pressure on the Electrical insulation of Plasma-sprayed Alumina Coating	Mrs. LUO, Rongrong (Southwestern Institute of Physics)

BOARD	TITLE	PRESENTER
52	Effect of Rapid-forging and annealing on the properties of W-TaC alloys	Dr. FENG, Fan
53	The dynamic testing and analysis of copper and copper alloy in divertor working temperature range	MAO, X.
54	Study on the Welding Process of the Vacuum Vessel Mock-up for CFETR	LIU, Zhihong
55	Reverse Processing of CFETR Vacuum Vessel Mock-up	Ji, Haibiao (Institute of Plasma Physics, Chinese Academy of Sciences)
56	Application of Contour Fitting Method in CFETR VV Assembly	FAN, Xiaosong
57	Neutronic Shielding Design of the ITER EC Upper Launcher	SPAEH, Peter (KIT)
58	Integral Benchmark Experiments on a Large Copper Block using GELINA accelerator to validate natural Cu neutron inelastic scattering cross sections from different neutron cross section databases	Dr. PILLON, Mario (ENEA)
59	Neutronics and thermomechanical analysis of a conceptual shielding blanket for CFETR	Dr. ZHANG, Jie
60	Modeling of advanced nuclear fuel cycles incorporating hybrid fission/fusion devices.	Prof. NIETO-PEREZ, Martin (CICATA Queretaro - IPN)
61	Engineering Methodology to Provide Integrity of the ITER Port Plug On-Board Components Dynamically Responding to Plasma Transients Combined with Seismic Events	PANIN, Anatoly (Forschungszentrum Juelich GmbH)
62	Current Status and Progress on the Shield Blanket Design of CFETR Reactor	Dr. CHANGLE, Liu (Institute of Plasma Physics, CAS)
63	Concept Design of GDT-Based Fusion Neutron Source for Improving the Q with High Field Neutral Beam Injection	Dr. CHEN, Dehong (Key Laboratory of Neutronics and Radiation Safety, Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences)
64	Physics and engineering progress of CFETR integration design	GAO, Xiang (Institute of Plasma Physics, Chinese Academy of Sciences)
65	Conceptual design of the cryogenic system for CFETR	LIU, Xiaogang (Institute of Plasma Physics Chinese Academy of Sciences)
66	Assembly methodology and tools developed for Tore Supra transformation into WEST platform	BRUN, Cyril (CEA)
67	A construction design of helium recovery and purification system on HL-2M	CHEN, Xin

BOARD	TITLE	PRESENTER
68	Research on Brazing technique of tungsten materials and reduced active ferritic–martensitic steels	WANG, Jianbao
69	Introduction of the EAST plasma facing components cooling water system	Dr. XU, Tiejun (ASIPP)
70	Progress in the development of CFC/CuCrZr components for HL-2M divertor	Dr. LIAN, Youyun (Southwestern Institute of Physics)
71	An approach to the study of crack initiation at the divertor tungsten target plates of ASDEX Upgrade	JAKSIC, Nikola (Max Planck Institute for Plasma Physics, EURATOM Association)
72	The in-vessel protection components for ITER First Plasma operation	Dr. HUNT, Ryan (ITER Organization)
73	Recent Development in Structural Design and Optimization of ITER Neutral Beam Manifold	Dr. CAO, Chengzhi (Southwestern Institute of Physics)
74	Design of a local oscillator for the 2.45GHz/4MW LHCD system on EAST	Dr. LIANG, ZHU (ASIPP)
75	Numerical–experimental benchmarking of a probabilistic code for prediction of Voltage Holding in High Vacuum, for ITER N-NBI	PILAN, Nicola (Consorzio RFX)
76	Control and protection system for the W7-X ECRH plant – experience from the first and plans for the next campaign	MARSEN, Stefan (Max-Planck-Institut für Plasmaphysik)
77	Advances in Technology, Performance, and Power and Polarization Measurements for the ECH System on DIII-D	Dr. CENGHER, Mirela (General Atomics)
78	Mechanism for Plasma Fusion with Major Ionic Species at Only Ten Million Kelvins	Prof. ZHANG, Tianxi (Alabama A & M University)
79	Particle model of the driver of ITER NBI system	IPPOLITO, Nicola (INFN - Italy)
80	Polarizer designed for the electron cyclotron resonance heating system on J-TEXT	Dr. LIU, C.H. (First author)
81	The Design of Real-time Communication System Based on RFM and MRG-Realtime for EAST	Ms. CHUNCHUN, Li (Institute of Plasma Physics, Chinese Academy of Sciences)
82	Modeling of Ohmic Disruptive Discharge in J-TEXT Using the Tokamak Simulation Code	Dr. YANG, Jinhong (New Star Research Institute of Applied Technology)
83	Application of EPICS in HL-2A Host Centralized Control System	XU, Jie
84	Lithium Evaporation System Design for the NSTX-Upgrade Fusion Device	Dr. CAI, Dang (Princeton Plasma Physics Lab)

BOARD	TITLE	PRESENTER
85	Simulation study of large power handling in the divertor for CFETR phase II	Dr. LIU, Xiaoju (Institute of Plasma Physics, Chinese Academy of Sciences)
86	Computational Modeling and Characterization of Plasma Pulsed Gun for Plasma Wall Interaction Applications	GÓMEZ-SAMANIEGO, Christian (CICATA Queretaro-IPN)
87	The effect of He nanobubble on inhibiting D trapping in radiation damaged tungsten	BAI, Quan (SWIP)
88	Preliminary Assessment of Tungsten as an Optional Plasma Facing Material in CFETR	XU, Guoliang (School of Nuclear Science & Technology, Univ. of Science & Technology of China)
89	Suppression of tungsten impurity by lithium injection in tungsten divertor on EAST	XU, Wei (Institute of Plasma Physics)
90	A Quasi-Periodic Linear Feeder for the Impurity Granular Injection on DIII-D	NAGY, Alexander (PPPL)
91	Time Synchronization Network for Poloidal Field Power Supply Control System Based on IEEE 1588	Mrs. HE, Shiyong (Institute of Plasma Physics, CAS)
92	Analysis of Short Circuit Fault for 4.6GHz/6MW LHCD High Voltage Power Supply	ZHIGANG, Yang (Institute of Plasma Physics, Chinese Academy of Sciences)
93	Design of Inverter Module on RMP coil Power Supply in EAST	Dr. SONG, Deyong (Institute of Plasma Physics, Chinese Academy of Sciences)
94	Designing a Power Module for Compressed Plasma	Dr. WENG, Zhiyuan (ASIPP)
95	Implementation of an Excitation Controller for an Impulse Motor-Generator	WANG, Chi (Southwestern Institute of Physics)
96	Conceptual Design of a Bidirectional Hybrid DC Circuit Breaker for Quench Protection of CFETR	WANG, Shusheng
97	The Design on Pulse Distributor and Its On-line Status Diagnosis for ITER PF Power Supply	Dr. CHEN, Xiaojiao (ASIPP, Univ. of Science and Technology of China)
98	Design a Suitable Test Scheme for Triggering Bypass Protection Test of ITER PF Converter Unit	Dr. ZHANG, Xiuqing (Institute of Plasma Physics Chinese Academy of Sciences)
99	Transient stability analysis of a flexible generator used in fusion power plant	Dr. LI, Hua (Institute of Plasma physics, Chinese Academy of Sciences)
100	Servo-Power-Controller Design Based on EPICS	DUAN, Yinchi (ASIPP)
101	The development of a monitoring system for EAST poloidal field power supply	Dr. ZHU, Lili

BOARD	TITLE	PRESENTER
102	Operation Analysis of Impulse Current Mode on ITER High Power DC Test Platform with SVC System	WANG, Xudong (Institute of Plasma Physics, Chinese Academy of Science)
103	Rectangular Magnetic Sensor Array for Current Measurement Based on Numerical Quadrature Method	GUO, Qi
104	Progress of Auxiliary Systems for Linear IFMIF Prototype Accelerator (IFMIF)	PRUNERI, Giuseppe (IFMIF/EVEDA Project Team, RFX)
105	PPPL's Project Management Office: Work Planning System	Ms. ASLAM, Soha (PPPL)
106	Automatic Deployment of a Nuclear Fusion Experimental Data Storage Cluster	Dr. ZHENG, Wei
107	Design and Analysis of the High Power DC Water-Cooled Busbar Connecting Type	WANG, Zhongma (Institute of Plasma Physics Chinese Academy of Sciences)
108	New features of the W7-X Safety Control system for OP 1.2	Dr. VILBRANDT, Reinhard (Max-Planck-IPP, Greifswald, Germany)
109	Preliminary Probabilistic Safety Assessment of Tokamak-type Fusion Power Plants In Conceptual Design Stage	Dr. CHEN, Shanqi (Key Laboratory of Neutronics and Radiation Safety, Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences)
110	Safety impact of the Be-steam reaction during in-box LOCA on the WCCB blanket for CFETR	Ms. CHENG, Xiaoman (Institute of Plasma Physics Chinese Academy of Sciences)
111	Latest results from the Hybrid Illinois Device for Research and Applications (HIDRA)	RIZKALLAH, Rabel (University of Illinois)
112	Sensitivity Studies of Tritium Transport to WCSB of CFETR	XIANG, Yang (Univ. of Science & Technology of China)
113	Tritium transport analysis for one water-cooled ceramic breeder blanket module of CFETR based on COMSOL	LAO, Dingyu (Institute of Plasma Physics Chinese Academy of Sciences)

Break (15:40-16:00)

M.OP1: Plasma Operation and Control - Salon 1 (5 Jun 2017, 16:00-18:00)

TIME	TITLE	PRESENTER
16:00	Plasma control for EAST long pulse non-inductive H-mode operation in a quasi-snowflake shape	XIAO, Bingjia (ASIPP)
16:20	Real-time control of MHD instabilities using ECCD	REICH, Matthias (IPP Garching)
16:40	Real-time detection and localization of magnetic island used for neoclassical tearing mode control and disruption mitigation	Ms. ZHANG, Yang
17:00	A first analysis of JET plasma profile based indicators for disruption prediction and avoidance.	Dr. PAU, Alessandro (Electrical & Electronic Engineering Dept- University of Cagliari, Italy)
17:20	New control ability on EAST PCS for steady-state operation	Dr. YUAN, Qiping (Institute of Plasma Physics, Chinese Academy of Sciences)
17:40	ELM pacing with lithium granules injection in W divertor on EAST	Dr. SUN, Zhen (Institute of Plasma Physics, Chinese Academy of Sciences)

M.OP2: Materials I - Salon 2 (5 Jun 2017, 16:00-18:00)

TIME	TITLE	PRESENTER
16:00	Application of Materials Science Advances to Fusion Energy	Dr. ZINKLE, Steven J. (University of Tennessee)
16:20	Thermomechanical properties of nanostructured W based coatings under ITER-relevant thermal loads	BESOZZI, Edoardo (Politecnico di Milano)
16:40	Effects of Temperature and He Concentration on Formation and Growth of He Bubble in BCC Iron Under Irradiation	ZHAN, Jie (University of Science and Technology of China)
17:00	Effects of high-energy C ions irradiation on the D retention behavior in V-5Cr-5Ti	XU, Yu-Ping (Institute of Plasma Physics, Chinese Academy of Sciences)
17:20	The experimental investigation of wetting property for liquid lead lithium alloy with breeder blanket materials	Prof. WANG, Weihua (Institute of Applied Physics, Army Officer Academy)
17:40	Design, synthesis and characterization of Li ₄ SiO ₄ -based solid solutions as advanced tritium breeders	ZHAO, Linjie (China Academy of Engineering Physics)

M.OP3: Next Step Devices, DEMO, Power Plants - Salon 3 (5 Jun 2017, 16:00-18:00)

TIME	TITLE	PRESENTER
16:00	Status of K-DEMO Design Concept Study	Dr. KIM, Keeman (National Fusion Research Institute, Republic of Korea)
16:20	Building a Virtual Tokamak - Integrated Multi-Physics Modelling for Fusion Engineering	COLEMAN, Matti (UKAEA)
16:40	Conceptual development of K-DEMO, highlighting maintenance and support details of in-vessel components	BROWN, Thomas (Princeton Plasma Physics Laboratory)
17:00	Preliminary Research on Reliability Index System of Fusion Power Plant	Dr. WANG, Dagui (Key Laboratory of Neutronics and Radiation Safety, Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences)
17:20	Initial concept for the plasma diagnostic and control system for the European DEMO tokamak reactor	BIEL, W. (Institut für Energie- und Klimaforschung, Forschungszentrum Jülich GmbH, Germany)
17:40	Status of the US Virtual Laboratory for Technology	Dr. FERGUSON, Phil (Oak Ridge National Laboratory)

Women in Engineering Reception - Meeting Room 5 (19:00-21:00)

Tuesday 06 June 2017

T.PLN: Plenary T - Grand Ballroom (6 Jun 2017, 08:00-10:10)

TIME	TITLE	PRESENTER
08:00	<i>Announcements</i>	
08:10	Plasma Instrumentation for Spaceflight Missions	WEIDNER, Scott (Princeton University)
08:50	Status and Progress of JT-60SA	KAMADA, Y (National Institutes for Quantum and Radiological Science and Technology)
09:30	Progress in the EU DEMO Research and Design Activity	Dr. FEDERICI, Gianfranco (EUROfusion)

Break (10:10-10:40)

T.OA1: Diagnostics and Instrumentation I - Salon 1 (6 Jun 2017, 10:40-12:40)

TIME	TITLE	PRESENTER
10:40	Design, Manufacturing, and Integrated Testing of the ITER Port Instrumentation	SIMROCK, Stefan
11:00	Design and Analysis Progress of US ITER Integrated Diagnostic Upper Port 14	Dr. ZHAI, Yuhu (PPPL)
11:20	Novel multi-energy x-ray cameras for magnetically confined fusion plasmas	DELGADO-APARICIO, Luis F. (Princeton Plasma Physics Laboratory)
11:40	Surface deterioration and recovery of CXRS first mirror in EAST	RONG, Yan
12:00	Integration Conceptual Study of Reflectometry Diagnostic for the Main Plasma in DEMO	Prof. GONÇALVES, Bruno (Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa)
12:20	Prototype manufacturing and testing of metalized ceramic printed circuit boards for ITER Bolometer cameras	Dr. PENZEL, Florian (Max Planck Institute for Plasma Physics)

T.OA2: Divertors and PFCs: Tungsten - Salon 2 (6 Jun 2017, 10:40-12:40)

TIME	TITLE	PRESENTER
10:40	Tungsten Technology Development in Korea and its Application to KSTAR Experiments	Dr. HONG, Suk-Ho (National Fusion Research Institute)
11:00	Investigation of ITER-Grade Tungsten under very High Heat Loads	KHIMCHENKO, Leonid (ITER RFDA)
11:20	Tungsten monoblock concepts for the U.S. Fusion Nuclear Science Facility (FNSF) first wall and divertor	HUANG, Yue (UCLA)
11:40	Thermal Stress Evaluation on the Optimized Shaping Design for Tungsten Monoblock in EAST Divertor	CHEN, Xiahua (Institute of Plasma Physics Chinese Academy of Sciences, University of Science and Technology of China)
12:00	Precipitation of Transmutant Elements in Neutron Irradiated Tungsten	Dr. HU, Xunxiang (Oak Ridge National Laboratory)
12:20	Defect Production and Deuterium Bulk Retention in Quasi-Homogeneously Damaged Tungsten	Dr. LIU, Feng (Institute of Plasma Physics, Chinese Academy of Sciences)

T.OA3: Blankets and Tritium Breeding: Liquid Breeders - Salon 3 (6 Jun 2017, 10:40-12:40)

TIME	TITLE	PRESENTER
10:40	Design of Chinese DEMO Blanket Concepts and R&D Progress of DFLL TBM	Prof. HUANG, Qunying (Key Laboratory of Neutronics and Radiation Safety, Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences)
11:00	WCLL breeding blanket design and integration: lessons learned in 2016 and follow-up	DEL NEVO, Alessandro (ENEA FSN-ING-PAN)
11:20	Consolidated Design of the Low Temperature EU-DCLL	RAPISARDA, David (CIEMAT)
11:40	Integration of the Neutral Beam Injector System into the DCLL breeding blanket for the EU DEMO	Dr. FERNÁNDEZ-BERCERUELO, Iván (CIEMAT)
12:00	Development, characterization and testing of a SiC-based material for Flow Channel Inserts in high temperature DCLL blankets	Mrs. SOTO, Carlota (CEIT)
12:20	The Application of Nano Fluid Technology on MHD Effect of Liquid Metal Tritium Breeder Blankets	Dr. MENG, Zi (Key Laboratory of Neutronics and Radiation Safety, Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences)

Lunch - Shanghai City Bistro/EZO Restaurant (12:40-13:40)

T.POS: Poster Session T - Junior Ballroom (6 Jun 2017, 13:40-15:40)

BOARD	TITLE	PRESENTER
1	RIPER: An Irradiation Facility to Test Radiation Induced Permeation and Release of Deuterium for Fusion Reactor Materials	Dr. MORONO, Alejandro (CIEMAT)
2	Pebble Bed Thermo-mechanical Modeling for Water Cooled Ceramic Breeder Blanket for CFETR	CHEN, Lei (ASIPP)
3	Thermal Hydraulic Analysis for One Water Cooled Blanket Module of CFETR Based on RELAP5	LIN, Shuang (University of Science and Technology of China)
4	Prediction of Departure from Nuclear Boiling in the First Wall of WCCB Blanket for CFETR	Dr. JIANG, Kecheng (ASIPP, University of Science and Technology of China)
5	Design and Analysis of "Filling-Evacuating" High-Pressure Helium-Cooled Loop	Dr. DENG, Haifei (Institute of Plasma Physics, Chinese Academy of Sciences)
6	Investigation on the Effect of Tritium Production using Temperature Control for DEMO Blanket	QIU, Yang (Institute of Plasma Physics Chinese Academy of Sciences)
7	The Influence of Heat Transfer on MHD Flow in the Blanket at High Hartmann Number	HAN, Jiajia
8	Computational Study of the Elastic Modulus of Mixed Pebble Beds for WCSB	LI, Yuanjie (University of Science and Technology of China)
9	Numerical Study of Interaction between Thermal Stress of the First Wall and Coolant Duct by Liquid-Solid Coupled Method in Fusion Reactor Blanket	WANG, Hongyan (Nanjing Institute of Technology)
10	The Vacuum Ultraviolet Imaging System and its Application on EAST	Dr. MING, Tingfeng (Institute of Plasma Physics, Chinese Academic Sciences)
11	Design of the Optical Emission Spectroscopy Diagnostic System and Preliminary Experimental Results in RF Negative Ion Source	WANG, Yan
12	Performance Analysis on the VUV Imaging System in EAST Tokamak	Ms. WANG, Zhijun
13	Design and Analysis Progress of US ITER Integrated Diagnostic Equatorial Port 09	Dr. ZHAI, Yuhu (Princeton Plasma Physics Laboratory)
14	Upgrade of Data Acquisition and Control System for Microwave Reflectometry on EAST	Dr. WEN, Fei (Institution of Plasma Physics, Chinese Academy of Sciences)
15	Design of a Robust Linear and Rotary Sensor Compatible with Hostile Environmental Conditions	Dr. NERI, Carlo (ENEA)
16	Research and design of microwave diagnostics on CFETR	QU, Hao (Institute of Plasma Physics, Chinese Academy of Sciences)

BOARD	TITLE	PRESENTER
17	Optimization and Design of Divertor Langmuir Probe Diagnostic System on the EAST Tokamak	XU, Jichan (ASIPP; USTC)
18	REFMULF: 2D Full-wave FDTD Full Polarization Maxwell Code	Dr. DA SILVA, Filipe (Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa)
19	Evaluation of the distribution of C5+ and Li2+ by the VUV imaging system on EAST	ZHOU, Fan (ASIPP, Science Island Branch of Graduate School, Univ. of Science & Technology of China)
20	Endoscope Emulator Test Stand for ITER Dust Monitor Diagnostic	VESHCHIEV, Evgeny (ITER Organization)
21	Design of a High Resolution Probe (HRP) Head for Electromagnetic Turbulence Investigations in W7-X	AGOSTINETTI, Piero (Consorzio RFX)
22	Cooling Needs and Thermal Hydraulic Design Studies of Diagnostic Shielding Module of US ITER Port Plugs	Dr. ZHAI, Yuhu (Princeton Plasma Physics Laboratory)
23	Development of Radiation Hard and Magnetic Field Compatible Vacuum Gauges for the ITER Project	BOUSSIER, Bastien (ITER Organization)
24	Inertia Load Analysis of ITER Equatorial and Upper Port Plug EPP9 and UPP14	Mrs. ZHANG, Han (Princeton Plasma Physics Lab)
25	Diversification of the position sensing instrumentation for the JET neutral beam calorimeters	BLATCHFORD, Peter (Culham Centre for Fusion Energy)
26	Physics and Geometry Design of Lower Divertor Upgrade in EAST Tokamak	XU, Houchang (Institute of Plasma Physics, Chinese Academy of Sciences, University of Science and Technology of China, Hefei University)
27	Design and Installation of Small Angle Slot (SAS) Divertor in DIII-D	MURPHY, Chris (General Atomics DIII-D)
28	Study on dynamic behavior of EAST upper divertor with vertical displacement events	QIAN, Xinyuan (School of Nuclear Science & Technology, Univ. of Science & Technology of China)
29	Preliminary Mechanism Analysis of HyperVapotron Experiment for High Heat Flux Components	CHU, Delin
30	3D numerical simulations of hypervapotron geometry on Thermalhydraulic Performance	WEI, Ran (ASIPP)
31	Thermo-Hydraulic Performance Testing for Plasma Facing Components by 3D Metal Printing Technology	Dr. KIM, Suk-Kwon (Korea Atomic Energy Research Institute)
32	Thermomechanical Assessment of the K-DEMO Divertor Target Applying CuCrZr and RAFM as Heat Sink Materials	Dr. KWON, Sungjin (National Fusion Research Institute)
33	Heat Transfer and Structural Analyses of a Water Cooled Tube under One-Sided Heating Conditions for Fusion Reactor Divertor	Ms. PING, Liu

BOARD	TITLE	PRESENTER
34	Characterization of Low Energy Plasmas in the device PG-QRO-1	Dr. RAMOS, Gonzalo (Instituto Politecnico Nacional)
35	Recent progress of pellet injection system in Experimental Advanced Superconducting Tokamak	Dr. YAO, Xingjia (ASIPP)
36	Application of PAUT in CFETR vacuum vessel austenitic stainless steel welding R&D	RUI, Wang (University of Science and Technology of China)
37	Pumping Performance Calculation of HL-2M in-vessel Cryopump based on Monte Carlo method	LI, Yong (Southwestern Institute of Physics)
38	Experimental study on vacuum control method for Paschen tests of the superconducting magnet	Dr. ZHANG, Zhirong
39	Design and Fabrication Process of Toroidal Field Coil for HL-2M	QIU, Yin
40	Structural design and analysis of the feeder in the CFETR CS model coil	GUO, Liang
41	Electrical and Magnetic Analyses and Design of New NSTX-U PF1A Coil	GAO, Zhi (PPPL)
42	Design and Analysis of CFETR CSMC Cooling Loop	Dr. HAO, Qiangwang (ASIPP)
43	Test results about simple CDA+MIK quench detection method on EAST for ITER Superconducting CS Coils	Prof. YANLAN, Hu (ASIPP)
44	Study of Electromagnetic Effects Induced by Huge Plasma Current Variations for EAST CS Coils Quench Detection	WANG, Teng (ASIPP)
45	Thermal-hydraulic analysis of high temperature superconducting magnets in CFETR	Dr. LI, Junjun (Institute of Plasma Physics Chinese Academy of Sciences)
46	Structural Stress Analysis of the CFETR CS Model Coil	XU, Aihua (ASIPP)
47	Qualification of ITER PF6 Helium Inlet	DU, Shuangsong
48	Manufacture and Electrical Properties of Instrumentation Wire Extraction Specimens for the ITER Feeder HV Insulation	LINLIN, Fang
49	The Influences of irradiation defects on mechanical properties for ceramic breeder material Li ₂ TiO ₃	WANG, Jing
50	The deuterium retention behavior in helium irradiated tungsten after plasma exposures in EAST	ZHAO, Mingzhong (Institute of Plasma Physics, Chinese Academy of Sciences)

BOARD	TITLE	PRESENTER
51	Some Properties of Beryllium Pebbles Produced by Powder Metallurgy for HCPB Breeding Blanket Application	KUPRIYANOV, Igor (A.A. Bochvar High Technology Research Institute of Inorganic Ma)
52	Flow Test at Factory for ITER Thermal Shield	Dr. NAM, Kwanwoo (ITER Korea)
53	Micro perspective on anti-fatigue performance enhancement of PFC metal welding interface with MD simulation	WANG, Xuan
54	Application of automatic ultrasonic testing system based on joint robot in Fusion Engineering	Dr. WANG, Rui
55	Repair of the Cracked Surface of W Using High Energy Pulsed Laser	ZHU, Dahuan (Institute of Plasma Physics, Chinese Academic of Sciences)
56	Analysis on Phase array ultrasonic signals of the ITER PF jacket inspection	Ms. LIU, Xiaochuan (ASIPP)
57	A Method to Alleviate the Long History Problem Encountered in Monte Carlo Simulations via Weight Window Variance Reduction	Dr. LI, Jia
58	Electromagnetic Analysis of the ITER Glow Discharge Cleaning Electrode in Equatorial Port No.12	Dr. CAI, Lijun
59	Multi-scenario evaluation and electromagnetic loads on CFETR VV mockup during MD event	Dr. XIAOJUN, Ni (ASIPP)
60	Numerical analysis of fracture behavior of first wall subjected to electromagnetic force during plasma disruption	Prof. PEI, Cuixiang (Xi'an Jiaotong University)
61	Multiphysics Modeling of the FW/Blanket of the U.S. Fusion Nuclear Science Facility (FNSF)	HUANG, Yue (UCLA)
62	Three confinement systems - Spherical Tokamak, Advanced Tokamak and Stellarator: A comparison of key component cost elements	BROWN, Thomas (Princeton Plasma Physics Laboratory)
63	Analysis and derivation of the EU-DEMO high level plant requirements	COLEMAN, Matti (UKAEA / EUROfusion)
64	Stochastic Cost Analysis of Steady State and Pulsed Demo-Like Fusion Power Plants	Prof. ZOLLINO, Giuseppe (Consorzio RFX (CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA), Univ. of Padova, Dept. of Industrial Engineering)
65	Advanced shape design with F2EQ code in CFETR	Dr. LUO, Zhengping (ASIPP)
66	Comparison of Deformation Models of Flexible Manipulator Joints for use in DEMO	Dr. LI, Ming (Lappeenranta University of Technology)
67	Integration of Metallic Seals on Circular Flanges for Neutral Beam Front End Components	URBANI, Marc (ITER Organization)

BOARD	TITLE	PRESENTER
68	Establish Full Covering Liquid Metal Film Flows under Poor Wettability Conditions for Liquid Divertor of Fusion Reactor	Dr. ZHANG, Xiujie (Southwestern Institute of Physics)
69	Preliminary Cooling Channel Design and Thermal-hydraulic Analysis of GDC PE in UPP14	LU, Yong (SWIP)
70	Preliminary Design for the First Wall in Weak Magnetic Side of HL-2M Project	Dr. LIN, Tao (Center for Fusion Science of Southwestern Institute of Physics)
71	Experimental Study on Multilayer Liquid Metal Film Flow Characteristics under Horizontal Magnetic field	Dr. JUAN-CHENG, Yang (Xi'an Jiaotong University)
72	Experimental Study on the Liquid Lithium Film Flow Characteristics under Spanwise Direction Magnetic Field	Prof. MING-JIU, Ni (University of Chinese Academy and Sciences)
73	Estimation of Stray Capacitances of Twin Source HVDC Transmission Line and its Stored Energy	VISHNUDEV, M.N. (ITER India, Institute for Plasma Research)
74	Power Control System of 4.6GHz Lower Hybrid Wave for Experimental Advanced Superconducting Tokamak	MA, Wendong (Institute of Plasma Physics, Chinese Academy of Sciences)
75	Degradation of Neutral Beam heating & current drive by Alfvénic instabilities	PODESTA, Mario (Princeton Plasma Physics Laboratory)
76	A Numerical Model of RF Ion Source for the ITER-Relevant NBI	Dr. WU, Xingquan
77	0-D Physical Design for the Heating and Current Drive System of CFETR	Dr. KONG, Defeng (ASIPP)
78	NBI _{mag} : A Useful Tool in the Design of Magnetic Systems for the ITER Neutral Beam Injectors	APRILE, Daniele (INFN-LNL)
79	Transport analysis of EAST long-pulse H-mode discharge with Integrated Modeling	MU, Muquan
80	Analysis and experimental study of impedance matching characteristic of RF ion source on neutral beam injector	Dr. JIANG, Caichao (ASIPP)
81	Fast Boundary Reconstruction from Tangentially Viewed Visible Images for Plasma Control in EAST	ZHANG, Heng
82	Analysis of non-inductively high-performance discharges	Ms. HANG, Qin
83	The Offline Simulation Module of J-TEXT Real-Time Framework	LI, Yang (Huazhong University of Science and Technology)
84	Comparison of radiative divertor behavior in Ar and Ne seeded plasmas in EAST	CHEN, Jingbo (Institute of Plasma Physics, Chinese Academy of Sciences)

BOARD	TITLE	PRESENTER
85	Application of Laser-Induced Breakdown Spectroscopy (LIBS) for In Situ Characterization of Lithium Deposition Layer on EAST Tokamak	Dr. HU, Zhenhua
87	Study of plasma density effects on the divertor power width of EAST by SOLPS5.0/B2.5-Eirene	DENG, Guozhong (Institute of Plasma Physics, Chinese Academy of Sciences)
88	R&D of Linear Plasma Facilities for PMI Research at ASIPP	Dr. ZHOU, H.-S. (ASIPP)
89	Development of Neural-Network Potentials for Atomistic Modelling of PWI	Mrs. CHEN, Lei (University of Innsbruck, Austria)
90	Simulation of turbulent plasma heat flux to the DEMO first wall	Dr. PESTCHANYI, Sergey (KIT)
91	The Protection Strategy Design and Implementation for ITER PF Converter System	Dr. HUANG, Liansheng
92	A digital signal processing system of digital Rogowski current transducer with comb filter	ZHANG, Zhen (Institute of Plasma Physics Chinese, Academy of Sciences)
93	Development of Rotational Speed Control Equipment And Brake Equipment for 300MVA Pulse Generator	WANG, Haibing
94	The Design of a 70kA/20kV Two-section Pyrobreaker for Quench Protection	HE, Jun (Institute of Plasma Physics)
95	Design of Current-Pulse Power Supply for Tearing Mode Control on the J-TEXT Tokamak	Dr. MAO, Li (Huazhong University of Science and Technology)
96	An Integration method of Hybrid Power Filter for Specific Harmonic Suppression in Tokamak Power System	LU, Jing (ASIPP Hefei Anhui)
97	Research on the Method of Reactive Power Detection for Tokamak Coil Power Supply Based on AC/DC System Active Power Balance	WU, Yanan (ASIPP)
98	Experimental Investigation on the Second Commutating Process of a Quench Protection Switch	LI, Sheng
99	Application of the voltage control mode of second-generation EAST active feedback power supply	Prof. HUANG, Haihong (Hefei University of Technology)
100	Measurement system of PSM HVPS for neutral beam injection on HL-2A	WANG, Yali (SWIP)
101	Design and implement of Varying Frequency Three-phase Synchronous Signal processing system Based on modern signal processing	Dr. LI, Weibin (SWIP)
102	Modeling and analysis on the six-phase generator - converter system as the magnetic field power supply of HL-2A/M	Dr. LIU, Xiaolong (Southwestern Institute of Physics, Chengdu, China)

BOARD	TITLE	PRESENTER
103	IPSE DIXIT: A User-Friendly Software Tool for the Design and Operation of Tokamak Power Supplies	LAMPASI, Alessandro (ENEA)
104	A flexible web visualization framework for nuclear fusion experiment data	WAN, Kuanhong (Huazhong University of Science and Technology)
105	A New User Front-End for EAST Remote Participation	Dr. SUN, Xiaoyang (Institute of Plasma Physics Chinese Academy of Sciences)
106	The Analysis of Socio-economic Impact on Big Science R&D: Focusing on Fusion R&D Program in Korea	CHOI, Wonjae (National Fusion Research Institute)
107	The Disturbance Analysis for Ultrasonic Doppler Profile Measurements Through Numerical Simulation	Dr. HUANG, Wangli
108	Meeting the new environmental targets with fusion power	Dr. CABAL, Helena (CIEMAT)
109	Structural Integrity Report of Neutron Flux Monitor at occluded EqP#07 (PBS 55.B4.D0)	LI, Jun
110	Shutdown Dose Rate Calculation for the Preliminary Concept of K-DEMO Equatorial Port Area	PARK, Jongsung (National Fusion Research Institute)
111	Ultrafine Pt nanoparticles on superhydrophobic 3D graphene aerogel for hydrogen-water exchange reaction	Dr. FU, Xiaolong
112	Application of ZD REDOX Detection Technology for Measuring Hydrogen Isotopes in Tritium Extraction System	CHENGJIAN, Xiao (Institute of Nuclear Physics and Chemistry, China Academy of Engineering Physics)
113	Curent Status Concerning Tritium Removal Technology and its Implementation at Cernavoda NPP (ROMANIA)	Dr. IONITA, Gheorghe (ICSI Rm-Valcea)
114	Study of fire impact on detritiation of atmosphere in tritium handling facility: catalytic oxidation of fume gas produced by cable burning	ROZENKEVICH, Mikhail (D. Mendeleev University of Chemical Technology of Russia)

Break (15:40-16:00)

T.OP1: Power Supply Systems - Salon 1 (6 Jun 2017, 16:00-18:00)

TIME	TITLE	PRESENTER
16:00	The ITER Power Supplies: Status and recommendations for the next tokamaks	BENFATTO, Ivone (ITER Organization)
16:20	The Power Supply System of SPIDER	GAIO, Elena (Consorzio RFX)
16:40	Design and Manufacturing of the SIC-based Power Supply System for Resistive-Wall-Mode Control in JT-60SA	FERRO, Alberto (Consorzio RFX)
17:00	Development of HL-2M Power Supply System	Dr. WANG, Yingqiao (Southwestern Institute of Physics)
17:20	Fuzzy Controller using Circulating Mode for ITER Poloidal Field (PF) AC/DC Converter System	HASSAN, Mahmood ul (Institute of Plasma Physics, Chinese Academy of Sciences)
17:40	A Constant Power Control Strategy for Three-Phase PWM Rectifier for the ITER In-Vessel Vertical Stabilization Coils	CHIEN, Karos (Institute of Plasma Physics)

T.OP2: Fueling, Exhaust, and Vacuum Systems - Salon 2 (6 Jun 2017, 16:00-18:00)

TIME	TITLE	PRESENTER
16:00	Brief History and Status of Cryogenic Pellets in Fusion Energy Research	COMBS, Stephen K. (Oak Ridge National Laboratory)
16:20	Design of Cryogenic Twin Screw Hydrogen Extruder System	MUKHERJEE, Samiran Shanti (Institute for Plasma Research, India)
16:40	Core Fueling of DEMO by Direct Line Injection of High-Speed Pellets from the HFS	Dr. FRATTOLILLO, Antonio (ENEA C.R. Frascati)
17:00	Refined Multiphysics Analysis of W7-X Cryopumps	Dr. ZHU, Jiawu (Max-Planck-Institut für Plasmaphysik)
17:20	Sub-Divertor Neutral Gas Dynamics: Integration Between the Vacuum System and the Divertor Operation	Dr. VAROUTIS, Stylianos (Karlsruhe Institute of Technology)
17:40	Hydrogen Isotope Separation by Cryogenic Chromatography in Processing Tokamak Exhaust Gas	Dr. XIAO, Chengjian (Institute of Nuclear Physics and Chemistry, China Academy of Engineering Physics)

T.OP3: Project Management and Systems Engineering - Salon 3 (6 Jun 2017, 16:00-18:00)

TIME	TITLE	PRESENTER
16:00	Status on Design and Construction of the ITER Buildings and Plant Systems	KUEHN, Ingo (ITER)
16:20	Preparation of ITER Tokamak Assembly and Tooling	REICH, Jens (ITER Organization)
16:40	Assessing Component Suitability and Optimising Plant Design – Alternative Approaches to TRLs	Dr. SURREY, Elizabeth (UKAEA)
17:00	Extent of Condition Review of the NSTX-U Project	NEUMEYER, Charles (PPPL)
17:20	Project Co-ordination Challenges During W7-X Completion	Dr. LORENZ, Axel (IPP Greifswald)
17:40	Early Lessons from the Application of Systems Engineering at UKAEA	WOLFF, Dan (UKAEA)

Wednesday 07 June 2017

W.PLN: Plenary W - Grand Ballroom (7 Jun 2017, 08:00-10:10)

TIME	TITLE	PRESENTER
08:00	<i>Announcements</i>	
08:10	Technical Progress of EAST Tokamak	Prof. SONG, Yuntao (Institute of Plasma Physics, Chinese Academy of Sciences)
08:50	Overview of US ITER Domestic Agency Progress	MURDOCH, Graeme (Oak Ridge National Laboratory)
09:30	Status of IFMIF Project: Is it Still Talking About IFMIF Like Talking of Alice in Wonderland?	Dr. KNASTER, Juan (IFMIF/EVEDA, F4E)

Break (10:10-10:40)

W.OA1: Materials II - Salon 1 (7 Jun 2017, 10:40-12:40)

TIME	TITLE	PRESENTER
10:40	Integrating Materials Engineering and Design for Fusion	Dr. GORLEY, Michael (Culham Centre for Fusion Energy)
11:00	Material Solutions for Flow Channel Inserts for Liquid Metal Blankets	Dr. KATOH, Yutai (Oak Ridge National Laboratory)
11:20	Effect of Heat Treatment on Anisotropic Tensile Behavior of CLAM Steel Fabricated by Additive Manufacturing	Dr. ZHAI, Yutao (Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences)
11:40	Synergetic effects of He ions irradiation and oxidation on W	LYU, Yi-Ming (Institute of Plasma Physics, Chinese Academy of Sciences)
12:00	Tungsten-steel composites fabricated by roll bonding and ultrasonic welding for structural use in plasma-facing components	GARRISON, Lauren (Oak Ridge National Laboratory)
12:20	Experiment Investigation on Heat Transfer Performance Enhancement of PFC Hypervapotron by Micro Surface Manipulation	Prof. HUANG, Shenghong

W.OA2: Divertors and PFCs: Liquid Metals - Salon 2 (7 Jun 2017, 10:40-12:40)

TIME	TITLE	PRESENTER
10:40	A Review of Recent Studies on Liquid Metal Plasma-Facing Components	Prof. HIROOKA, Yoshi (National Institute for Fusion Science and Graduate University for Advanced Studies)
11:00	Recent results of Li experiments in EAST with W divertor	Dr. HU, J.S. (Institute of Plasma Physics, Chinese Academy of Sciences)
11:20	Testing Liquid Metal/Capillary Porous System Concepts as alternative solution for the Divertor target design of a Fusion Reactor in TJ-II	Prof. TABARES, Francisco (CIEMAT)
11:40	Synergies in Liquid Metal Technology Development for Divertor Applications*	Dr. KAITA, Robert (Princeton Plasma Physics Laboratory)
12:00	Investigation of an upgraded flowing liquid lithium limiter for higher performance plasmas in tungsten divertor in EAST	Dr. ZUO, Guizhong (Institute of Plasma Physics, Chinese Academy of Sciences)
12:20	Advancement of LiMIT and Associated Technologies	SZOTT, Matthew (University of Illinois at Urbana-Champaign)

W.OA3: Neutronics and Multiphysics Analysis - Salon 3 (7 Jun 2017, 10:40-12:40)

TIME	TITLE	PRESENTER
10:40	Development and application of advanced nuclear software SuperMC for fusion	Dr. SONG, Jing (Institute of Nuclear Energy Safety Technology, CAS · FDS Team)
11:00	SuperMC Benchmark with SINBAD	Dr. HAO, Lijuan (Institute of Nuclear Energy Safety Technology, CAS · FDS Team)
11:20	Development and Validation of Cryostat Finite Element Model with Unique FE Method	SHARMA, Tarun Kumar (ITER-India, Institute for Plasma Research, Bhat, Gandhinagar, Gujarat, India)
11:40	Nuclear and Thermal Analysis of a Reflectometry Diagnostics Concept for DEMO	Dr. LUÍS, Raul (Instituto dos Plasmas e Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa)
12:00	Design, Research and Development of CFETR Vacuum Vessel	Dr. KUN, LU (Institute of Plasma Physics, Chinese Academy of Sciences)
12:20	Estimate of Air Activation at the ITER Neutral Beam Test Facility	SANDRI, Sandro (ENEA)

Lunch - Shanghai City Bistro / EZO Restaurant (12:40-13:40)

W.POS: Poster Session W - Junior Ballroom (7 Jun 2017, 13:40-15:40)

BOARD	TITLE	PRESENTER
1	Design and optimization of the CFETR breeding blanket with S-type cooling pipes in BU	XU, Chenyu (University of Science and Technology of China)
2	Classification of TBM components for construction code application	KIM, Dong Jun (Korea Atomic Energy Research Institute)
3	Effect of coolant mass flow rate on flow pulsation in a simplified channel system of CFETR WCCB blanket	Dr. LI, Min (Institute of Plasma Physics, Chinese Academy of Sciences)
4	Coupling analysis of the HCCB blanket under electromagnetic, thermal and mechanical loads	WANG, Ming
5	Corrosion test results of ARAA and FMS steel in the Experimental loop for liquid breeder	Dr. YOON, Jae Sung (Korea Atomic Energy Research Institute)
6	Evaluation of tritium inventory and permeation in water-cooled ceramic breeder blanket for CFETR	Dr. HUANG, Kai (Institute of Plasma Physics, Chinese Academy of Sciences)
7	Investigation of the contact resistance between the pebble beds and the box wall surface in the gas flow condition	PARK, Seong Dae (Korea Atomic Energy Research Institute)
8	Effects of the J-TEXT TBM mock-up on the equilibrium magnetic field and error field	Dr. ZHANG, Zhengqing
9	Steady State and Transient Thermal Analysis of the Updated Helium Cooled Solid Breeder Blanket for CFETR	Dr. ZHOU, Guangming (University of Science and Technology of China)
10	Development of I&C main functions for ITER VUV spectrometers and prototype test at KSTAR	AN, YoungHwa
11	Design of the optical emission spectroscopy diagnostic system and preliminary experimental results in RF negative ion source	WANG, Yan
12	Prototype design of a 700 C in-vacuum blackbody source for in-situ calibration of the ITER ECE diagnostic*	Dr. KHODAK, Andrei (Princeton Plasma Physics Laboratory)
13	Evaluation of spatial resolution of neutron profile monitor in LHD	KAWASE, Hiroki (SOKENDAI)
14	A preliminary consideration of CFETR diagnostic system	YANG, Yao (Institute of Plasma Physics, Chinese Academy of Science)
15	The management and storage of EAST diagnostic data	WANG, Feng (Institute of Plasma Physics, Chinese Academy of Sciences)
16	Use Spectrum Simulation Code SOS to test the performance of the Fast ion D-alpha spectrum on HL-2A	Dr. CHEN, P. (University of Electronic Science and Technology)

BOARD	TITLE	PRESENTER
17	High Priority Prototype Testing in support of System Level Design development of the ITER Radial Neutron Camera	Dr. RIVA, Marco (ENEA)
18	Developing the Simulation of Spectra Code Based on HL-2A tokamak Motional Stark Effect and Beam Emission Spectroscopy	CHEN, Y.C
19	First measurement of LIII charge exchange line on EAST tokamak	Dr. LI, Yingying (Institute of Plasma Physics, Chinese Academy of Sciences,)
20	Preliminary Design of Laser-Induced Breakdown Spectroscopy Diagnostic for Divertor Analysis in EAST	Dr. LI, Cong (Key Laboratory of Materials Modification by Laser, Ion & Electron Beams, Chinese Ministry of Education, School of Physics & Optical Electronic
21	Observation scenario of knock-on-tail shape using Doppler-broadening	Ms. KAWAMOTO, Yasuko (Kyushu University)
22	Design of a dual-band IR imaging system for surface temperature measurements on the tungsten divertor in EAST	GAN, Kaifu (university of Tennessee, Knoxville)
23	An Overview of NSTX-U Diagnostics	ELLIS, Robert (Princeton Plasma Physics Laboratory)
24	Advanced Plasma Diagnostic Analysis using Neural Networks	TRITZ, Kevin (Johns Hopkins University)
25	Recent improvement of the design of the ITER steady-state magnetic sensors	ENTLER, Slavomir (Institute of Plasma Physics of the CAS)
26	Modeling of pre-Thermal Quench and Thermal Quench stages of disruption induced by Massive Gas Injection in ITER	Dr. LEONOV, Vladimir (NRC"Kurchatov Institute")
27	Liquid metal natural convection research heat transfer in the presence of a transverse magnetic field	Prof. Z H, Wang
28	Cooling concepts for CFETR divertor target	Dr. PENG, Xuebing (ASIPP)
29	Swirl tube design of the pole shield in the magnet for the long pulse upgrades of EAST-NBI based on the subcooled boiling	Dr. TAO, Ling (Institute of Plasma Physics Chinese Academy of Sciences)
30	The influence of ELMs on low cycle fatigue behavior of ITER-like divertor target	Prof. HUANG, Shenghong
31	Preliminary progress of the divertor module in CFETR system code	ZHANG, Jianwu (University of Science and Technology of China)
32	Improved thermal performance of an updated NSTX-U inner divertor	SIBILIA, Marc (PPPL)
33	Engineering overview of the Fusion Research in Costa Rica: SCR-1 Stellarator and Spherical Tokamak MEDUSA-CR	OTAROLA, C. (Plasma Laboratory for Fusion Energy and Applications, Instituto Tecnológico de Costa Rica)

BOARD	TITLE	PRESENTER
34	Physics of the High Field Ultra Low Aspect Ratio Tokamak	Dr. RIBEIRO, Celso
35	ZrCo bed as Protium and Deuterium storage material	HAN, Xingbo (Shanghai Institute of Applied Physics, Chinese Academy of Sciences, Shanghai)
36	A new concept to achieve a higher fuel burn-up fraction in a DEMO reactor	Dr. IGITKHANOV, Yuri (KIT, Germany)
37	Cryopump development of the 5MW NBI system on HL-2M tokamak	YANG, Xianfu (Southwestern Institute of Physics)
38	Current Status of the EU DEMO Vacuum Systems	DAY, Christian (KIT)
39	Winding Design for CFETR Central Solenoid Model Coil	HAN, Houxiang
40	Structural Concept Design Of CFETR CS Model Coil	YIN, Dapeng (ASIPP)
41	Research and Analysis on Electrical Performance of EAST Cryogenic Axial Insulation Breaks	WU, Cheng
42	Design and Analysis of Magnet System for Filitestbed in EAST	HU, Lexing (ASIPP)
43	Qualification of ITER Correction Coil Superconductor Joint	WANG, Lin (Institute of Plasma Physics, Chinese Academy of Sciences)
44	Challenges for the Wendelstein 7-X magnet systems during the next operation phase	Dr. RUMMEL, Thomas (Max-Planck-Institute for Plasma Physics)
45	Monitoring, Modeling, and Protecting Against Insulation Failures in the NSTX-U TF Outer Legs	TITUS, Peter (Princeton Plasma Physics Laboratory)
46	Studies on DEMO Toroidal Field Circuit	MAISTRELLO, Alberto (Consorzio RFX)
47	Modeling and Qualifying Operational and Cooldown Strains of the NSTX-U PF1a Coils	TITUS, Peter (Princeton Plasma Physics Laboratory)
48	Hydrogen Effects on Properties of ICP Sprayed Boron Carbide Coatings	GUO, Qijia (ASIPP)
49	Boron Carbide Coating on Tungsten By ICP Thermal Spraying	Ms. ZHOU, Qiujiào
50	The LIPAc Beam Dump	Dr. BRAÑAS, Beatriz (CIEMAT)

BOARD	TITLE	PRESENTER
51	Profile Tolerances influence on Cryostat Base Section	SANDHU, SARBJEET SINGH (ITER-India, Institute for Plasma Research)
52	Irradiation effects on lifetime of first wall structure materials for CFETR	Prof. PENG, Lei (University of Science and Technology of China)
53	Assessment of Cavitation Erosion Risk in the Liquid-Lithium Flow in IFMIF-DONES	Dr. GORDEEV, Sergej (Karlsruhe Institute of Technology)
54	Molecular Dynamics Study on Effect of GBS Misorientation Angle on GBS Helium Embrittlement in BCC Iron	SHI, Jingyi (University of science and technology of China)
55	Manufacturing design assessment of the welded in-wall shield rib for ITER	Ms. KIM, YuGyeong (NFRI)
56	Study on helium-induced hardening due to interaction between helium bubbles and edge dislocation by molecular dynamics simulation	LIU, Xing (University of Science and Technology of China)
57	Measurements and model calculations of activation reaction rate for (n,p) reaction on ⁵⁴ Fe isotope	Ms. CHEN, Wuhui (Institute of Plasma Physics Chinese Academy of Sciences. School of Nuclear Science and Technology)
58	Neutronics Analysis of Helium Cooled Ceramic Breeder Blanket with S-shaped Lithium zone and Cooling Pipes for CFETR	LU, Yudong (University of Science and Technology of China)
59	The analysis of shielding performance for toroidal field coils of CFETR	SHI, Wei
60	Analysis of Dogleg Duct Experiments with 14 MeV Neutron Source Using TRIPOLI-4 Monte Carlo Transport Code	Dr. LEI, Mingzhun (Institute of Plasma Physics, Chinese Academy of Sciences)
61	Application of Gaussian Processes for predicting tritium breeding ratio in the helium cooled pebble bed breeder blanket	Dr. JONATHAN, Shimwell (CCFE)
62	Neutronic study and shielding performance analyses for CFETR blankets	Ms. XU, Shuling
63	Plasma Control Requirements for Commercial Fusion Power Plants: A Quantitative Scenario Analysis with a Dynamic Fusion Power Plant Model	TAKEDA, Shutaro (Kyoto University)
64	Study of a plasma boundary reconstruction method based on reflectometric measurements for control purposes	Dr. MARCHIORI, Giuseppe (Consorzio RFX)
65	Design of 11 MA Snowflake divertor configurations of CFETR	LI, Hang (ASIPP, Science Island Branch of Graduate School, Univ. of Science & Technology of China)
66	Multi-design Innovative Cooling Research & Optimization (MICRO): a novel set of optimized solutions for enhanced heat transfer in DEMO	GAMBETTA, Giulio (Università degli Studi di Padova)
67	VARID: Virtual and Augmented Reality Integrated Development Facility for Research in Remote Handling and Maintenance of Tokamaks	DUTTA, Pramit (Institute for Plasma Research)

BOARD	TITLE	PRESENTER
68	Design of the dimensional metrology and alignment scheme for the 1/32 CFETR VV Mock-up	GU, Yongqi
69	Deuterium transport and retention in a liquid metal Gallium under steady state plasma bombardment	BI, Halin (National Institute for Fusion Science)
70	Performance of full compositional W/Cu functionally gradient materials under quasi-steady state heat load	WANG, Baoguo (University of Science and Technology of China)
71	Electromagnetic Control of Free-Surface Liquid Metal Flows	Dr. HVASTA, Michael (Princeton University)
72	Web Services for 3D MHD Equilibrium Data at Wendelstein 7-X	GRAHL, Michael (Max-Planck-Institut für Plasmaphysik)
73	Control system designed for the electron cyclotron resonance heating system on J-TEXT	YU, Z.X.
74	Signal transmission links for the electron cyclotron resonance heating system on J-TEXT	CUI, Fangtai
75	Investigation of causes of arcing in an arc-driven multi-cusp negative ion source for JT-60SA	ICHIKAWA, Masahiro (National Insitute for Quantum and Radiological Science and Te)
76	Design and optimization of cooling channels for 4-strap ICRF antenna of EAST	WEI, Song
77	Development of off-axis beamline for KSTAR	Dr. JUNG, Sangwook (National Fusion Research Institute)
78	Design and setup of the High Voltage Radio Frequency Test Facility for the characterization of the dielectric strength in vacuum of RF drivers for Neutral Beam Injectors Ion Sources	MAISTRELLO, Alberto (Consorzio RFX)
79	High current density negative ion beam acceleration toward the ITER accelerator	Dr. HIRATSUKA, Junichi (NB Tech. Heating Group, Naka fusion Institute QST, Japan)
80	Structural and thermal analysis of a distributed ICRF antenna integrated in European DEMO blanket	BADER, Amro (Max-Planck-Institut für Plasmaphysik)
81	New H&CD designs and the impact of their configurations on the performance of the EU DEMO fusion power plant reactor	FRANKE, Thomas (EUROfusion Consortium)
82	Research on Synchronous Data Network of J-TEXT Plasma Control System	PAN, Yuan (Huazhong University of Science and Technology)
83	GPU parallel Grad-Shafranov solver for real-time equilibrium reconstruction	HUANG, Yao (Institute of Plasma Physics, Chinese Academy of Sciences)
84	Anisotropic neutron emission spectrum and its utilization for verification of nuclear elastic scattering effect in proton-beam-injected deuterium plasmas	Prof. MATSUURA, Hideaki (Kyushu University)

BOARD	TITLE	PRESENTER
85	Deuterium permeation and retention behavior in a martensitic/ferritic steel	LIU, Hao-Dong
86	Development and Verification of Computational Model for Control of Plasma and Halo Current in East Tokamak	Dr. HASSAN, Mahmood UI
87	Impact of plasma configuration on impurity and density control during long pulse discharges in EAST	MAO, Hongmin (Institute of Plasma Physics, Chinese Academy of Sciences)
88	Deuterium retention in tungsten exposed to KSTAR plasmas	Dr. WU, Jing (Institute of Plasma Physics, Chinese Academy of Sciences)
89	Active Recycling Control Through Lithium Injection in EAST	CANIK, John (Oak Ridge National Laboratory)
90	Dynamics and control of droplet splashing from tungsten divertor materials generated by ELM-like heat loads	Dr. NAGATA, M (University of Hyogo)
91	Type Tests of JT-60SA Central Solenoid / Equilibrium Field (CS/EF) Super-Conducting Magnet Power Supplies	Dr. ZITO, Pietro (ENEA)
92	A ZCS AC/DC Converter with LCL	HANG, Qin
93	A Novel Power Supply Design for Multistage Depressed Collector Gyrotrons	KEENS, Simon (Ampegon AG)
94	An Active Gate Control for Press-Pack IGBTs in Series applied for high-voltage switch	WANG, Dongyu
95	Design of a high power and low parasitic inductance resistor	Ji, Xinke
96	Design of the Alfvén Eigenmodes excitation power supply on J-TEXT	ZHOU, Song (Huazhong University of Science and Technology)
97	Design of High Precision Power Supply Control System for ITER Platform	JU, Peng (Institute of Plasma Physics, Chinese Academy of Science)
98	Design & Development of High Voltage Power Supply for Negative Ion Source	HUANG, Meichu (Institute of Plasma Physics, Chinese Academy of Sciences)
99	The SF6 Gas Handling and Storage Plant of the MITICA test facility	Dr. ZANOTTO, Loris (Consorzio RFX)
100	3MW Dual Output High Voltage Power Supply Operation: Results for Accuracy, Stability and Protection Test	PATEL, Amit (ITER-India, Institute for Plasma Research)
101	The Proposed Improvement for Neutral Beam Injection Power Supply System	LOWDER, Austin (Miami University)

BOARD	TITLE	PRESENTER
102	Final acceptance test of the Ion Source and Extraction Power Supplies for the SPIDER experiment	ZAMENGO, Andrea (Consorzio RFX)
103	A New Parallel IGBT Current Sharing Control for Tokamak Vertical Stabilization Current Supply System	YUE, Lu (University at Buffalo)
104	Concept of the integrated environment of management by large scientific projects	MIKHAIL, Subbotin (NRC "Kurchatov Institute")
105	Engineering Design Modules on CFETR Integration Design Platform	LI, Yang (University of Science and Technology of China)
106	Designing for Tokamak Emergent Behaviour using a Hierarchical Systems Engineering Architecture Design Process	ELLIS, Rob (UKAEA)
107	Progress on the Design Development for Hard Core Components (HCC) for ITER Diagnostic System	GONZALEZ TEODORO, Jorge Rafael (PPPL)
108	Inspection Method for Delamination Defect in First Wall Panel of Tokamak Device by using Laser Infrared Thermography Technique	LIU, Haochen (Xi'an Jiaotong University)
109	Personnel Safety at Magnetic Fusion Experiments	CADWALLADER, Lee (Idaho National Laboratory / Battelle Energy Alliance)
110	An Equation of State and Compendium of Thermophysical Properties of Liquid Tin, a Prospective Plasma-Facing Material	Dr. HUMRICKHOUSE, Paul W. (Idaho National Laboratory)
111	Hydrogen isotopes plasma-driven permeation through sputter-deposited tungsten coated F82H	Dr. XU, Yue (The Graduate University for Advanced Studies)
112	Hydrogen isotope permeation through tungsten deposition layer formed on Ni plate by plasma sputtering method	MORI, Daisuke (Kyushu University)
113	TCAP hydrogen isotope separation process under development at ICSI Rm. Valcea	Dr. ANA, George (ICSI Rm. Valcea)

Break (15:40-16:00)

W.OP1: Magnets - Salon 1 (7 Jun 2017, 16:00-18:00)

TIME	TITLE	PRESENTER
16:00	Commissioning of the Wendelstein 7-X In Vessel Control Coils	FÜLLENBACH, Frank (Max-Planck-Institut für Plasmaphysik)
16:20	Qualification of the US conductors for ITER TF magnet system	Dr. MARTOVETSKY, Nicolai (Lawrence Livermore National Laboratory, on assignment to ORNL)
16:40	Fabrication Status of ITER Central Solenoid Modules	Dr. SMITH, John (General Atomics)
17:00	Evaluation of ITER CS Module OD Band Structure for Lead Supports	FREUDENBERG, Kevin (Oak Ridge National Laboratory)
17:20	Progress and Study on the Superconducting Magnet System of China Fusion Engineering Test Reactor	ZHENG, Jinxing (Institute of Plasma Physics, Chinese Academy of Sciences)
17:40	Development and applications of Magnets module for SYCOMORE CEA system code	ZANI, Louis (CEA-IRFM)

W.OP2: Heating and Current Drive - Salon 2 (7 Jun 2017, 16:00-18:00)

TIME	TITLE	PRESENTER
16:00	The ITER Neutral Beam Test Facility: Recent Advances	TOIGO, Vanni (Consorzio RFX)
16:20	Smoothly Varying Injected Neutral Beam Voltage and Current Provides New Capability on the DIII-D Tokamak*	SCOVILLE, Tim (General Atomics)
16:40	Conceptual Design of a 2-Channel Steady-State ECH Launcher for KSTAR	ELLIS, Robert (Princeton Plasma Physics Laboratory)
17:00	Design, Test and Analysis of a Gyrotron Cavity Mock-up cooled using Mini-Channels	Prof. SAVOLDI, Laura (NEMO group, Dipartimento Energia, Politecnico di Torino)
17:20	Towards a new generation of high power high efficiency neutral beam heating system for the future fusion reactors	SIMONIN, Alain (CEA)
17:40	Optics and Thermo-Mechanical Analysis of the Accelerator for the Demo Neutral Beam Injector	AGOSTINETTI, Piero (Consorzio RFX)

W.OP3: Blankets and Tritium Breeding: Solid Breeders - Salon 3 (7 Jun 2017, 16:00-18:00)

TIME	TITLE	PRESENTER
16:00	Progress in design activities related to the water cooled breeder blanket for CFETR Phase-I	Prof. LIU, Songlin (Institute of Plasma Physics, Chinese Academy of Sciences)
16:20	Overview of the HCPB Research Activities in EUROfusion	HERNANDEZ, Francisco (Karlsruhe Institute of Technology)
16:40	Study of the pebble beds for tritium breeding blanket	Prof. CHEN, Hongli
17:00	3D Unsteady Model for Be-steam Reaction in Water Cooled Ceramic Breeder Blanket	Dr. KHODAK, Andrei (Princeton Plasma Physics Laboratory)
17:20	Tritium release from Li ₄ SiO ₄ : The effect of material properties	Dr. RAN, Guangming
17:40	Parametric analysis of the EU DEMO HCPB breeding blanket thermal-hydraulic transient operation using the GETTHEM code	Prof. ZANINO, Roberto (NEMO group, Dipartimento Energia, Politecnico di Torino)

Banquet - Shunfeng Restaurant (19:00-22:00)

Thursday 08 June 2017

R.PLN: Plenary R - Grand Ballroom (8 Jun 2017, 08:30-10:00)

TIME	TITLE	PRESENTER
08:30	<i>Announcements</i>	
08:40	Prospect towards steady-state helical fusion reactor based on progress of LHD project entering the deuterium experiment phase	Prof. TAKEIRI, Yasuhiko (National Institute for Fusion Science, National Institutes of Natural Sciences)
09:20	Engineering Challenges in W7-X and preparations for the second operation phase	Prof. BOSCH, Hans-Stephan (MPI for Plasma Physics)

Break (10:00-10:20)

S.PLN: Plenary S - Grand Ballroom (8 Jun 2017, 10:20-11:40)

TIME	TITLE	PRESENTER
10:20	Status and Plans on MAST-U	MILNES, Joseph (UKAEA)
11:00	Progress of Fusion Technology at SWIP toward Reactor	LIU, Yong

Lunch (11:40-12:40)

R.OP1: Diagnostics and Instrumentation II - Salon 1 (8 Jun 2017, 12:40-14:40)

TIME	TITLE	PRESENTER
12:40	Neutron Diagnostics in the Large Helical Device	Prof. ISOBE, Mitsutaka (National Institute for Fusion Science, National Institutes of Natural Sciences, SOKENDAI)
13:00	Joint plasma pressure diagnostic system of Beam Emission Spectroscopy and Ultrafast Charge eXchange Recombination Spectroscopy	Dr. YU, Yi (University of Science and Technology of China)
13:20	Commissioning of KSTAR motional Stark effect diagnostic with background polychrometer	KO, Jinseok (National Fusion Research Institute)
13:40	Estimation of X-mode reflectometry first fringe frequency using neural networks	AGUIAM, Diogo E. (Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa)
14:00	In situ and real time observation of tritium behavior in the metal by reversing associated particle spectra of DT neutron generator	Dr. ZHU, Qingjun (ASIPP)
14:20	Managing ITER diagnostics and port plug engineering project risks	FEDER, Russell (Princeton Plasma Physics Laboratory)

R.OP2: PMI and Plasma Edge Physics - Salon 2 (8 Jun 2017, 12:40-14:40)

TIME	TITLE	PRESENTER
12:40	Overview of plasma surface interactions in tungsten with helium plasma exposure	Prof. WIRTH, Brian (University of Tennessee, Knoxville)
13:00	Multiphysics simulations of plasma-material interactions during transient plasma events	Prof. HASSANEIN, Ahmed (Purdue University)
13:20	Understanding tungsten divertor sourcing, transport and its impact on core impurity accumulation in DIII-D high performance discharges	ABRAMS, Tyler (General Atomics)
13:40	Utilization of isotopically enriched tungsten tracer particles and outer-midplane collector probes for impurity transport studies in the far scrape-off layer of DIII-D*	Dr. DONOVAN, D. (University of Tennessee Knoxville)
14:00	Study of D retention and impurity emission properties of oxidized B4C coatings under deuterium irradiation in NSTX-U	BEDOYA, Felipe (University of Illinois)
14:20	Design, Construction and Installation of Limiter & Divertor of ADITYA-U Tokamak	PATEL, Kaushal (Institute for Plasma Research)

R.OP3: Tritium Extraction and Control - Salon 3 (8 Jun 2017, 12:40-14:40)

TIME	TITLE	PRESENTER
12:40	Tritium extraction from HCLL/WCLL/DCLL PbLi BBs of DEMO and HCLL TBS of ITER	Dr. UTILI, Marco (ENEA FSN-ING C.R. Brasimone)
13:00	Liquid PbLi atomization in vacuum for tritium and heat recovery	Prof. KONISHI, Satoshi (Institute of Advanced Energy, Kyoto University)
13:20	Recent developments on the TRITON experiment	GARCINUÑO, Belit (CIEMAT)
13:40	Estimation of tritium release and permeation behavior in water cooled solid breeder blanket	Prof. KATAYAMA, Kazunari (Kyushu University)
14:00	Analyses Of DEMO Tritium Self-sufficiency	NIE, Baojie (Key Laboratory of Neutronics and Radiation Safety, Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences)
14:20	Validation of Tritium Self-Sufficiency of DEMO	Prof. KONISHI, Satoshi (Institute of Advanced Energy, Kyoto University)

Break (14:40-15:00)

R.OP4: Stellarators - Salon 1 (8 Jun 2017, 15:00-17:00)

TIME	TITLE	PRESENTER
15:00	Preparation and commissioning for the LHD deuterium experiment	Prof. OSAKABE, Masaki (National Institute for Fusion Science, National Institutes of Natural Sciences)
15:20	Review of Research and Engineering on the H-1 Heliac	Dr. BLACKWELL, Boyd (Australian National University)
15:40	HIDRA – A Stellarator for Materials Research	Prof. ANDRUCZYK, Daniel (University of Illinois)
16:00	The quasi-optical steady state 10 MW ECRH system of Wendelstein 7-X commissioning, plasma operation and future plans	STANGE, Torsten (Max-Planck-Institute for Plasma Physics)
16:20	Mechanical Monitoring Issues in Preparation to Next Step of W7-X Operation	Dr. BYKOV, Victor (Max Planck Institute for Plasma Physics)
16:40	Prospects for stellarators based on additive manufacturing	QUERAL, Vicente M. (CIEMAT)

R.OP5: Experimental Devices II - Salon 2 (8 Jun 2017, 15:00-17:00)

TIME	TITLE	PRESENTER
15:00	Design and Analysis of an Actively Cooled Window for a High Power Helicon Plasma Source	Dr. LUMSDAINE, Arnold (Oak Ridge National Laboratory)
15:20	Tokamak design and maintenance scheme trade off Application on CFETR	VILLEDIEU, Eric (CEA)
15:40	Study of the impact of pre- and real-time deposition of lithium on plasma performance on NSTX	P. CANAL, Gustavo (General Atomics)
16:00	CODAC Core System for ITER plant system I&C	DI MAIO, Franck (ITER Organization)
16:20	Extreme ultraviolet spectroscopy applied to study RMP effects on core impurity concentration in EAST	VOGEL, Germán (University of Science and Technology of China)
16:40	Development of a utility negative ion test equipment with RF source at ASIPP	Dr. WEI, Jianglong (Institute of Plasma Physics, Chinese Academy of Sciences)

R.OP6: Safety, Operations, and Maintenance - Salon 3 (8 Jun 2017, 15:00-17:00)

TIME	TITLE	PRESENTER
15:00	Fusion R&D Activities at INEST	Prof. YU, Jie (Key Laboratory of Neutronics and Radiation Safety, Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences)
15:20	Failure Impact of crucial components on DEMO maintenance performance and mitigation attempts	MITTWOLLEN, Martin (Karlsruhe Institute of Technology)
15:40	Forensic Analysis of Faulted NSTX-U Inner Poloidal Field Coil	PETRELLA, JR., Joseph (Princeton Plasma Physics Laboratory)
16:00	Proposed methodology for unplanned repair scenarios in ITER	Dr. ZHENG, Shanliang (CCFE, UK Atomic Energy Authority)
16:20	Radiation Maps in the ITER Tokamak Complex during Operation	JUAREZ, Rafael (Universidad Nacional de Educación a Distancia)
16:40	CorteX: A Standardised Remote Operations Communications System that is Inherently Designed to Accommodate Change	SKILTON, Robert (UKAEA)