

9th International Workshop on Plasma Material Interaction Facilities for Fusion Research (PMIF 2025) 6-8 October 2025, Uji, Japan

Monday 6 October 2025		
9:00	Registration	
9:15	Welcome	
Session 1: Development of PMI facilities-I		
9:25	Noriyasu Ohno	Development and present status of divertor plasma simulator NAGDIS-II
9:50	Naomichi Ezumi	Recent Results from Divertor Simulation Experiments in GAMMA 10/PDX
10:15	Arkadi Kreter	Recent results from PSI-2 and status of the JULE-PSI project
10:40	Hans van Eck	Recent developments and experiments at DIFFER’s PSI facilities
11:05	Coffee break	
Session 2: Development of PMI facilities-II		
11:30	Guangnan Luo	Operational status of the compact high-flux linear plasma device SPARROW
11:55	Haishan Zhou	Recent developments of the linear plasma device SWORD
12:20	Long Cheng	Design and preliminary test of the new linear plasma device with in-situ transient grating spectroscopy and X-ray diffraction at Beihang University
12:45	Lunch	
Session 3: Development of PMI facilities-III		
13:45	Mizuki Sakamoto	Recent results from Pilot GAMMA PDX-SC experiments
14:10	Reina Miyauchi	Characteristics of TPD Arc Plasma Source Using Large Diameter LaB6 Cathode for Pilot GAMMA PDX-SC
14:35	Yuta Kinashi	Characterization of Hydrogen Plasma Generated by Hybrid Method Using DC-Arc and RF Discharges
15:00	Hiro Bhattarai	Effective excitation of an Alfvén Slow Wave with Difference-Frequency between Two Fast Waves in the GAMMA 10/PDX Central Cell
15:25	Coffee break	
Session 4: Development of PMI facilities-IV		
15:50	E.A. (Zeke) Unterburg	The MPEX near-term research plan and timeline to operations
16:15	Gayatri Dhamale	Testing high-Z refractory coatings in PISCES-A for helicon source impurity mitigation for MPEX
16:40	Daisuke NISHIJIMA	Status of the UCSD POSEIDON facility: An experiment for the study of simulated burning plasma-material interactions
17:05	Takumi Seto	Plasma Characteristics and Wave Propagation near Helicon Plasma Source in PISCES-RF
17:30	End	

Tuesday 7 October 2025

Session 5: Development of PMI facilities-V

9:25	Joey Demiane	The DIONISOS Helicon Linear Plasma Device: Modifications and Research Activities on Low-Z PFC
9:50	Rahul Rayaprolu	Plasma conditioning and planned active sample-handling in the upcoming linear plasma device JULE-PSI
10:15	Andrea Uccello	The BiGyM Project: Status and Perspectives
10:40	Johann Riesch	GLADIS high heat flux testing for present-day fusion devices: correlation of testing and reactor application
11:05	Coffee break	
11:30	Discussion	

Session 6: Testing of FW and divertor materials-I

11:55	Long Li	The effect of He-induced surface fuzz on deuterium permeation through W
12:20	Yu Li	Helium bubbles retard recrystallization in tungsten by limiting subgrain growth
12:45	Lunch	

Session 7: Testing of FW and divertor materials-II

13:45	Quan Shi	Reduction of Temperature Threshold for W Fuzz Growth by surface pre-treatment
14:10	Soon Han Bryan Teo	The effects of thermal history on the He plasma-material interactions of tungsten and tungsten-based refractory alloys
14:35	Shingo Okumura	Trapping and Diffusion Profile of Hydrogen Isotopes for Damaged Tungsten-Tantalum alloy
15:00	Coffee break	

Session 8: Testing of FW and divertor materials-III

15:25	Yuzuka Hoshino	Effect of Re addition on hydrogen isotope permeation behaviour
15:50	Miyuki Yajima	Characterization of Deuterium Trapping in Neutron-Irradiated Tungsten Using the Compact Divertor Plasma Simulator (CDPS)
16:15	Discussion	
16:40	Heliotron J Tour	
17:30	End	

The workshop dinner will take place near Kyoto Station.

Wednesday 8 October 2025

Session 9: Testing of FW and divertor materials-IV

9:25	Andrei Gorjaev	Laboratory Assessment of ITER-Relevant Boron Layer Fuel Removal using Glow Discharge Cleaning and Ion Cyclotron Wall Conditioning in the TOMAS Device
9:50	Lauren Nuckols	Ultra-high Temperature Ceramic TiB ₂ Response to Steady-State Deuterium Plasma

Session 10: Diagnostics for plasma and material science & Plasma edge and divertor physics-I

10:15	Qin Lei	Proximal probe thermal desorption mass spectrometry: a method for measuring lateral distribution of hydrogen isotopes retention in tungsten
10:40	H.F Song	In-situ thermal desorption spectroscopy of deuterium in tungsten in the scanning electron microscope

11:05 Coffee break

Session 11: Diagnostics for plasma and material science & Plasma edge and divertor physics-II

11:30	Shinji Yoshimura	The Asymmetric Optical Vortex Laser-Induced Fluorescence Method for Measuring Flow in Plasma–Solid Materials Boundary
11:55	Shin Kajita	Cross-Machine Modeling of Machine-Learning based Helium Line Intensities

12:20 Discussion

12:45 Closing

14:00 IEA PWI TCP: 81st ExCo meeting