

## Poster Session 1 : May 13th, 2024

- P1-001 EMC3-EIRENE simulation of boron transport in wall conditioning experiments on EAST upgraded divertor - Tian XIE**  
P1-002 EMC3-EIRENE modelling of edge plasma and impurity transport by localized nitrogen seeding on CFETR X-divertor - Yujian WANG
- P1-003 Detached plasma fluctuation and radial transport behavior at high/low magnetic field in Magnum-PSI - Hirohiko TANAKA**  
P1-004 Development of machine learned interatomic potentials for modeling plasma-material interactions - Mary Alice CUSENTINO
- P1-005 Macroscopic modelling of D trapping in self-damaged tungsten with vacancy clusters using atomistic scale modelling data - Etienne HODILLE**  
P1-006 Liquid metal erosion module for SOLPS code and its application to T-15MD lithium divertor simulations - Evgeny MARENKOV
- P1-007 Endoscope laser-induced breakdown spectroscopy (LIBS) for in situ elemental diagnosis on divertor in EAST - Cong LI**  
P1-008 Effects of magnetic flux expansion on detachment - Yuhe FENG
- P1-009 SOLPS-ITER modeling of impurity transport in the edge tokamak transport barrier - Veronika KORZUEVA**  
P1-010 Generalized Hasegawa-Wakatani model of anomalous transport of multi-species plasma - Sergei KRASHENINNIKOV
- P1-011 Study of impurity seeded radiation enhancement in the divertor with resonant magnetic perturbations in HL-3 - Dongmei FAN**  
P1-012 Modelling the Influence of Anisotropic Temperature on Sheath Boundary Conditions and Scrape-Off Layer Dynamics - Alfie ADHEMAR
- P1-013 Experimental Study on Edge Localized Mode Mitigation and Suppression by Supersonic Molecular Beam Injection in Tokamaks - Bin CAO**  
P1-014 2D structure of the radiation layer in W7-X and the impact of plasma surface interactions on shaping the profiles - Daihong ZHANG
- P1-015 Quantitative analysis of impurity distributions on the plasma facing components of EAST tokamak by a portable LIBS device - Zhenhua HU**  
P1-016 Integrated Simulation of the Response of Plasma Facing and Nearby Components during Transient Events in Exact 3-D ITER Design – Design Concerns - Ahmed HASSANEIN
- P1-017 The impact of upstream D2 puff on divertor detachment and impurity control with argon seeding in EAST - Zhongshi YANG**  
P1-018 Exploring Divertor Mock-ups Responses to the Thermal loads: A Comparative Study of Recrystallization of Tungsten Under the Steady State Heating and Cyclic High Heat Flux Loading - Narguess NEMATI
- P1-019 In-vessel inspection of W7-X after the first operation with actively cooled CFC divertor Chandra - Prakash DHARD**  
P1-020 Active control of edge density profile and ELM mitigation with right-angled lower tungsten divertor in EAST - Qingquan YANG
- P1-021 Metallic droplet impact simulations on plasma-facing components - Ladislav VIGNITCHOUK**  
P1-022 In-situ spectroscopic ellipsometry on deuterium plasma exposed tungsten: role of temperature and ion implantation - Federica PAPPALARDO
- P1-023 Exposure of Sn-wetted W CPS targets to simultaneous NBI beam and high-power CW laser pulses at the OLMAT high-heat flux facility - Eider OYARZABAL**  
P1-024 Removal of deuterium retention by various helium discharge cleanings under strong magnetic field in EAST superconducting tokamak - Yaowei YU
- P1-025 Modelling of fast flow liquid lithium divertor for next step fusion devices using coupled boundary plasma and liquid metal transport codes - Shahinul ISLAM**  
P1-026 Lyman line opacities in tokamak divertor plasmas under high-recycling and detached conditions - Ray CHANDRA
- P1-027 Dependence of the neutral and impurity transport on varied gas baffling - Guangyu SUN**  
P1-028 Characterization and controllability of radiated power via impurity seeding in strongly negative triangularity plasmas in DIII-D - David ELDON
- P1-029 Mechanisms of Dust-Wall Interactions in Nuclear Fusion Devices: A Molecular Dynamics Simulation Approach - Prashant DWIVEDI**  
P1-030 Modelling Detachment Control in Alternative Divertor Configurations - Cyd COWLEY
- P1-031 Progress of laser-based techniques for the first wall diagnosis in HL-3 - Dongye ZHAO**  
P1-032 In-vessel colorimetry of Wendelstein 7-X first wall components after OP2.1 - Gen MOTOJIMA
- P1-033 Synergetic effects of neutron and helium plasma irradiation on the microstructure evolution in tungsten - Zhangcan YANG**  
P1-034 Quantification of deuterium and low-Z impurity deposition on long-term samples exposed in ASDEX Upgrade - Karl KRIEGER
- P1-035 Annealing of radiation-induced and He-related defects and their influence on deuterium retention in displacement-damaged EUROFER - Andreas THEODOROU**  
P1-036 Melting of W/Cu flat-type component for limiter and its impact on plasma operation in EAST - Dahuan ZHU
- P1-037 Effectiveness of boron particulate wall conditioning in the full tungsten environment of WEST - Robert LUNSFORD**  
P1-038 The impact of entrainment on the erosion and re-deposition of tungsten under ITER-like plasma conditions - Mark CORNELISSEN
- P1-039 First integrated core-edge fluid simulation of ITER's Limiter-Divertor transition with SolEdge-HDG - Manuel SCOTTO D'ABUSCO**  
P1-040 SPARC divertor operational space and asymmetry analysis using SOLPS-ITER simulations - Jae-Sun PARK
- P1-041 3D Visual In-situ Monitoring Diagnosis of Micro-scale Surface Morphology Changing of Plasma Facing Materials Utilizing Laser Speckle Interferometry - Hongbei WANG**  
P1-042 Density compensation and sawtooth modification by pellet fueling during ELM suppression with n=4 RMPs in EAST tokamak - Hou JILEI
- P1-043 Demonstration of ELM buffering by impurity seeding in ASDEX Upgrade and JET - Michael KOMM**  
P1-044 Investigation of H-mode density limit in mixed protium–deuterium plasmas at JET with ITER-like wall - Alexander HUBER
- P1-045 Quantifying the impact of source variation through cryopumping on the edge electron density of Alcator C-Mod H-modes using SOLPS-ITER - Marco MILLER**  
P1-046 Helium irradiated tungsten: real-time bubbles growth processes by in-situ Grazing Incidence Small Angle X-ray Scattering at the ESRF synchrotron. - Loic CORSO
- P1-047 Plasma-wall conditioning of boron containing layers in TOMAS facility - Laura DITTRICH**  
P1-048 Self-consistent modelling of particle-reflection distributions of dynamically modifying rough surfaces under energetic particle bombardment using SDtrimSP and comparison with MD simulations - U. VON TOUSSAINT
- P1-049 Evolution and cleaning of the deposit layers on the lower divertor of WEST fully equipped with ITER grade components - Jonathan GERARDIN**  
P1-050 A new design of actively cooled plasma-facing units for the divertors of fusion reactors - Jamie GUNN
- P1-051 On the role of chaotic magnetic edge structures in new stellarator divertor concepts - Kelly GARCIA**  
P1-052 Effective control of intrinsic impurities behavior using n=1 resonant magnetic perturbation in EAST H-mode plasmas - Wenmin ZHANG
- P1-053 First observation of ferromagnetic dust and its possible influence on plasma discharges in EAST - Rong YAN**  
P1-054 Prediction and analysis of radiative collapse from camera images using machine learning in LHD. - Yuya SUZUKI
- P1-055 Suppression of tungsten concentration by ECRH off-axis deposition in EAST - Yongliang LI**  
P1-056 Post-mortem analysis of the deposit layers on the lower divertor after the high particle fluence campaign of WEST - Céline MARTIN
- P1-057 Integrated data analysis technique for inference of 2D plasma parameter fields in divertor physics experiments - Daniel GREENHOUSE**  
P1-058 Study of material erosion and deposition in magnetically shadowed region on EAST - Lei MU
- P1-059 Studies on the plasma exposure behavior of refractory high entropy alloy at extreme target temperature and He+ flux/fluence - Mayur KAKATI**  
P1-060 nHESEL predictions of density shoulder formation in JET-ILW H-, D-, T-isotope L-mode plasmas - Alexander Simon THRYSSØE
- P1-061 Experimental investigation of steady state power balance in double null and single null H mode plasmas in MAST Upgrade - Jack LOVELL**  
P1-062 First Results from a ECR Plasma Source for Studies of Deuterium Retention in Flowing Liquid Lithium - Daniel O'DEA
- P1-063 Overview of Lithium Loop for Retention and Extraction of Deuterium during Plasma Bombardment - David RUZIC**  
P1-064 Results of testing high-temperature ceramics with pulsed heat load possible in the divertor zone of the ITER tokamak - Dmitrii CHEREPANOV
- P1-065 Assessment of divertor shunt diagnostic as a detachment detector in KSTAR impurity-seeded discharges using SOLPS-ITER modelling - Kyubeen KWON**  
P1-066 Hydrogen Isotope Interaction with Boron Layers - Anne HOUBEN



## Poster Session 1 : May 13th, 2024

---

- P1-067 Demonstrating the impact of ro-vibrationally excited H2 on divertor detachment via population modelling** - Richard BERGMAYR  
P1-068 Experimental and modeling studies of scrape-off-layer impurity velocity stagnation points on DIII-D - Galen BURKE
- P1-069 Overview of SPARC power exhaust predictions and plans for heat load mitigation during operations** - Tom LOOBY  
P1-070 Assessment of plasma-reduced and plasma-enhanced performance of SiC as a plasma facing material - Tatyana SIZYUK
- P1-071 Effect of grain size on defect annealing in displacement-damaged tungsten** - Anze ZALOZNIK  
P1-072 Comparison of DIII-D and MAST-U divertor performance dependence on divertor configuration and geometry - Roberto MAURIZIO
- P1-073 Integrated modeling of boron material injection and its effect on the PFC surface evolution in tokamak plasmas** - Florian EFFENBERG  
P1-074 Investigating the Response of Additively Manufactured Alloys to Low Energy Helium Bombardment. - Shane EVANS
- P1-075 Effect of the capacitive current on fast swept Langmuir probe measurements in a tokamak divertor near detachment** - Dmitry RUDAKOV  
P1-076 First experimental results from the divertor plasma simulator MPS-LD - Chaofeng SANG
- P1-077 Results from the Helium Retention Mechanism Experiment in Stellarators (HeRMES) Campaign.** - Daniel ANDRUCZYK  
P1-078 Plasma Boundary Simulations Of Limiter Ramp-Up Phase Of ITER - Arzoo MALWAL
- P1-079 Wisconsin HTS Axisymmetric Mirror Experiment as a Testbed for Plasma-Material Interactions** - Mykola IALOVEGA  
P1-080 Hydrogen co-deposition with ITER-relevant materials: W and B - Stepan KRAT
- P1-081 Retention and recycling of hydrogen and helium particles on the integrated commissioning phase on JT-60SA** - Masakatsu FUKUMOTO  
P1-082 A semi-automated fast scheme for designing stellarator divertors for optimal neutral exhaust and heat loads using reduced physical models - Robert DAVIES
- P1-083 EIRENE predictions of deuterium emission in DIII-D L-mode plasmas constrained by 2D Divertor Thomson Scattering and Langmuir probe measurements** - Mathias GROTH  
P1-084 Surface modification of additively manufactured W and W-Re materials following H-mode plasma exposure in the DIII-D divertor - Robert KOLASINSKI
- P1-085 Time-dependent density functional theory simulation for analyzing the neutralization process of hydrogen ion injected onto tungsten surfaces** - Yuto TODA  
P1-086 High heat flux on the limiters in the far SOL during long-pulse and high-power discharges on EAST - Binfu GAO
- P1-087 Access to an ELM-suppressed X-point radiator regime in TCV snowflake minus configurations** - Holger REIMERDES  
P1-088 First principle modelling of edge plasma turbulence during a power scan including neutral recycling with the fluid code soledge3x - Hugo BUFFERAND
- P1-089 Comparative modeling of neon and tungsten impurity transport in the boundary plasma of EAST with normal and extended grid to the first wall** - Hui WANG  
P1-090 Modelling of the ITER divertor monoblock top surface melt damage under repetitive ELM-induced heat loads - Konstantinos PASCHALIDIS
- P1-091 Analysis of the role of toroidal field direction in turbulent multi-component simulations of tokamak plasma in detached conditions** - Davide MANCINI  
P1-092 Tritium retention characteristics of the dust in LHD after the deuterium plasma experiment - Teppei OTSUKA
- P1-093 Influence of Ion Temperature on Detached Plasma Formation in the GAMMA 10/PDX Divertor Simulation Plasma** - Naomichi EZUMI  
P1-094 Impact of inter-pulse wall outgassing on ITER plasma start-up - Federico CURSI
- P1-095 Overview and preliminary assessment of divertor edge plasma experimental data in ST40** - Matteo MOSCHENI  
P1-096 Influence of nitrogen seeding on the fuel retention in tungsten - Arkadi KRETER
- P1-097 Simulation study of the effect of E×B drift on the scrape-off layer plasma** - Shifeng MAO  
P1-098 Lithium vapour box module for liquid metal experimental campaigns in the linear plasma generator Magnum-PSI - Fabio ROMANO
- P1-099 Simulation studies of particle and helium exhaust in detached divertor and impurity transport for JA-DEMO reactor** - Nobuyuki ASAKURA  
P1-100 Hydrogen isotopes retention and permeation in boron-coated wall materials - Haishan ZHOU
- P1-101 Power exhaust in TCV X-point target divertor configurations** - Kenneth LEE  
P1-102 He plasma induced bubbles at tungsten surfaces: effect of temperature on morphology and properties - Marco MINISSALE
- P1-103 Electromagnetic effects on turbulent structures in edge plasmas with SOLEDGE3X** - Raffael DÜLL  
P1-104 Dissipative compact divertor in WEST: experiments and SOLEDGE modelling - Nicolas RIVALS
- P1-105 Evaluation of the heat flux decay length with embedded Fiber Bragg Grating sensors in the WEST divertor** - Yann ANQUETIN  
P1-106 Comparison of W and light impurity source and transport from multiphysics modeling in plasma shape changes experiments performed in WEST - Alex GROSJEAN
- P1-107 The role of divertor shape, neutral baffling and fuelling on the rovibrational distribution of D2 (and H2) in the MAST-U and TCV divertors.** - Nick OSBORNE  
P1-108 The impact of isotope mass on divertor detachment and pedestal structure - Ray CHANDRA
- P1-109 Comparison of LID-QMS and LIA-QMS methods for the quantity analysis of the hydrogen isotopes retention in first-wall components.** - Oleg MEDVEDEV  
P1-110 Determining WEST Main Chamber Tungsten Erosion Through Synthetic Diagnosis - Zeke UNTERBERG
- P1-111 Deuterium and helium interaction in the subsurface layer of tungsten under ion bombardment** - Anastasiya UMERENKOVA  
P1-112 Cross-machine assessment of real-time boronization by solid boron injection - Alessandro BORTOLON
- P1-113 Estimating the impurity distribution in AUG during experiments with a liquid Sn module using Aurora and FACIT** - Elisabetta BRAY  
P1-114 Comparison of the power scrape-off width in NSTX and ST40 - Travis GRAY
- P1-115 Influence of oxygen on deuterium retention in tungsten: from O sub-monolayer to WO3 thin layers** - Régis BISSON  
P1-116 The properties of the QCM in EDA H mode and its relation to QCE in ASDEX Upgrade - Gustavo GRENFELL
- P1-117 Plasma-wall interaction impact of the ITER re-baseline** - Richard PITTS  
P1-118 Investigations in all metal devices relevant for the operation of ITER equipped with all W PFCs - Rudolf NEU
- P1-119 Overview of plasma wall interactions in the first high particle fluence campaign of WEST** - Emmanuelle TSITRONE  
P1-120 ICRF-specific W sources: advances in minimization in ASDEX Upgrade and near-field based extrapolations to ITER with W wall - Volodymyr BOBKOV
- P1-121 Comparison of plasma start-up with high Z and low Z first wall in WEST** - Christophe GUILLEMAUT  
P1-122 Boron coating on full metal wall in EAST for supporting ITER new baseline - Guizhong ZUO
- P1-123 Full W ITER: assessment of expected W erosion and implications of boronization on fuel retention** - Klaus SCHMID  
P1-124 Deuterium retention behaviors of boron films at DIII-D divertor surface - Shota ABE
- P1-125 JT-60SA wall conditioning towards the first plasma** - Tomohide NAKANO  
P1-126 Boronisation with tungsten plasma-facing surfaces in ASDEX Upgrade - Volker ROHDE
- P1-127 Deposition and erosion simulation on diagnostic first mirrors in ITER with a boronized first wall** - Sebastian RODE  
P1-128 Synergistic effect of boron powder and neon gas injection for power exhaust and ELM suppression in EAST with tungsten divertor - Zhen SUN
- P1-129 Full-torus impurity transport simulation in multi-species impurity powder injection experiments in the Large Helical Device** - Mamoru SHOJI



## Poster Session 2 : May 14th, 2024

---

**P2-001 EMC3-EIRENE modelling of the heat load fall-off width with neon impurity injection on EAST - Zihao GAO**

P2-002 Atomic and molecular deuterium emission spectroscopy in edge and divertor relevant plasmas - [Daisuke NISHIJIMA](#)

**P2-003 EMC3-EIRENE simulation of toroidal heat flux distribution with nitrogen seeding on CFETR X-divertor - Zhiyuan ZHANG**

P2-004 Tungsten crystallite orientation dependence of near-threshold hydrogen irradiation damage - [Eric NICHOLSON](#)

**P2-005 Designing a dissipation-focused DIII-D divertor for high-power H-mode scenarios considering E×B drift flows and pump location - Andreas HOLM**

P2-006 Impact of boron injection location on divertor heat flux in EAST wall conditioning experiments with EMC3-EIRENE modelling - [Fanchuang LI](#)

**P2-007 SOLPS-ITER simulations studying the role of aspect ratio on edge fueling neutrals in tokamaks - Yi-Cheng CHUANG**

P2-008 A review of tungsten atomic data improvements and associated spectroscopic measurements for erosion of plasma facing components - [David ENNIS](#)

**P2-009 Power deposition onto the divertor targets with advanced divertor configurations in the HL-3 tokamak - Jinming GAO**

P2-010 Designing tungsten armoured plasma facing components to pulsed heat loads in magnetic fusion machines - [Raphael MITTEAU](#)

**P2-011 Deuterium retention in 3-D printed (e-beam powder-bed fused) tungsten exposed to high-flux D2 plasma in PISCES-RF - Matthew BALDWIN**

P2-012 New langmuir probe system and first measurement in upgraded tungsten divertor of KSTAR - [Eunam BANG](#)

**P2-013 Assessment of fuel purification requirements in a DEMO Reactor - Yuri IGITKHANOV**

P2-014 Interaction between the injected tungsten dust and tokamak plasma - [Chijin XIAO](#)

**P2-015 Effects of divertor geometry on detachment with lower tungsten divertor in EAST - Jianbin LIU**

P2-016 Comparison of 2D electron density profiles using coherence imaging spectroscopy in the MAST-U divertor for varying poloidal leg length - [Nicola LONIGRO](#)

**P2-017 Modifications of deuterated mixed boron-metal layers on PFC materials: In-situ analysis during ion irradiation and thermal annealing - Eduardo PITTHAN**

P2-018 Heat flux controller development using a time-dependent scrape-off layer model in closed-loop simulations - [Anchal GUPTA](#)

**P2-019 Effect of injection geometry and impurity equilibrium on ELM pacing by Li pellet injection in EAST edge plasma - Mao LI**

P2-020 Investigation of island size effect on radiation distribution during attached and detached plasmas in the island divertor of W7-X - [Byron PETERSON](#)

**P2-021 Investigation of emissivity and reflectivity on damaged tungsten surface - Soo-Hyun SON**

P2-022 Deuterium absorption and desorption on the tungsten trioxide - [Aleksandr AFONIN](#)

**P2-023 Probing the island divertor SOL of W7-X with reciprocating Langmuir probe arrays - Carsten KILLER**

P2-024 Divertor erosion of ASDEX Upgrade during helium plasma operation - [Tomi VUORIHEIMO](#)

**P2-025 Modelling of the time-dependent spatial distribution of ELM-induced heat load on ITER first wall panel - Sunwoo MOON**

**P2-026 Addressing the impact of Lyman opacity in inference of divertor plasma conditions with 2D spectroscopic camera analysis of Balmer emission during detachment in JET L-mode plasmas - Juuso KARHUNEN**

**P2-027 The effect of deuterium partial pressure on the retention of tungsten-deuterium co-deposited layers - Marlene PATINO**

P2-028 Numerical study of transport and equilibration of ablated particles in edge plasmas in EAST fueling deuterium pellet experiment - [Fang GAO](#)

**P2-029 High velocity solid dust impacts on tiles of tokamak-relevant surface temperature Marco - DE ANGELI**

P2-030 Comparison of filament properties in experiment and full-size global fluid turbulence simulations in TCV - [Yinghan WANG](#)

**P2-031 W7-X divertor concept studies derived from a priori first principles - Thierry KREMEYER**

P2-032 Investigating density build-up in the Wendelstein 7-X island divertor - [Nassim MAAZIZ](#)

**P2-033 Current quench heat loads on an ITER tungsten first wall using the refactored TOKES code - Leon BOGDANOVIĆ**

P2-034 TALIF measurements of atomic deuterium in toroidal divertor simulator - [NAGDIS-T Shin KAJITA](#)

**P2-035 Actively cooled carbon and tungsten divertor target concepts for JT-60SA environment: qualification tests and exploratory design - Mehdi FIRDAOUSS**

P2-036 Fast transient simulation at leading edges of tungsten armor with the high-energy CW laser at the OLMAT High Heat Flux facility Daniel - [ALEGRE-CASTRO](#)

**P2-037 Impact of transport models on local measurements in W7-X using synthetic diagnostics with EMC3-EIRENE and comparison to experimental observations in the W7-X island scrape-off layer - David BOLD**

P2-038 Production and characterization of tailored tungsten-based coatings for divertor-relevant studies - [Luigi BANA](#)

**P2-039 Real-time boron powder injection experiments in WEST with ITER grade full-tungsten divertor - Kirill AFONIN**

P2-040 Laboratory studies on sputtering of structured tungsten model surfaces - [Martina FELLINGER](#)

**P2-041 In search of X-point radiator regime features in NSTX and DIII-D discharges with the snowflake-minus divertor. - Vlad SOUKHANOVSKII**

P2-042 Development of functionally graded W/SiC first wall for Fusion Pilot Plant - [Zack BERGSTROM](#)

**P2-043 A first study of the damage-resistant complex-concentrated-alloy W38Ta36Cr15V11 in PISCES-RF high-flux D2 plasma - George TYNAN**

P2-044 Measurement and Modeling of Hydrogen Permeation Behavior under Simultaneous Irradiation of Hydrogen and Tungsten Particles - [Kentaro MASUTA](#)

**P2-045 Numerical simulation of deuterium retention in tungsten under ELM-like conditions - Vladimir KULAGIN**

P2-046 Geant4 modelling of runaway electron transport into bulk tungsten - [Tommaso RIZZI](#)

**P2-047 Erosion of tungsten causing a large amount of dust in the WEST tokamak - Cécile ARNAS**

P2-048 Diffusion of H atoms and defects formation at the W/Cu interface in the ITER cooling monoblocks - [Yosvany SILVA SOLIS](#)

**P2-049 Overview of plasma flow velocity trends in the Wendelstein 7-X scrape-off layer - Valeria PERSEO**

P2-050 Exhaust assessment of a European Volumetric Neutron Source (EU-VNS) using SOLPS-ITER - [Sven WIESEN](#)

**P2-051 Development of ITER first wall heat load feedback control - Federico PESAMOSCA**

P2-052 Investigating Plastic Deformation Mechanisms in Deuterated Tungsten with Atomistic Nanoindentation Modeling Francisco Javier - [DOMINGUEZ GUTIERREZ](#)

**P2-053 Characteristic of heat pulse propagating in detached plasma in Magnum-PSI - Yuki HAYASHI**

P2-054 In-vessel inspection of arc traces on the W7-X plasma facing components after the operation phase OP2.1 - [Dogyun HWANGBO](#)

**P2-055 Impact of particle drifts in SOLPS-ITER simulations for KSTAR L-mode plasmas - Junghoo HWANG**

P2-056 W sputtering and prompt re-deposition study under high density divertor conditions - [David TSKHAKAYA](#)

**P2-057 Transport studies in the scrape off layer and divertor of WEST L-modes plasmas, during nitrogen detachment featuring X-point radiator - Louis FEVRE**

P2-058 Towards a Systematic Analysis of EUDEMO Edge Divertor Scenarios - [Fabio SUBBA](#)

**P2-059 Studies of tin plasma clouds in a detached-like state from a capillary porous system irradiated at the OLMAT High Heat Flux Facility - Alfonso DE CASTRO**

P2-060 Investigating the Impact of Ageing on Deuterium Retention in Plasma-Facing JET-ILW Components - [Norberto CATARINO](#)

**P2-061 Global impurity migration in Wendelstein 7-X: Balance and footprint of 13C after the 13CH4 injection experiment - Christoph KAWAN**

P2-062 Simulation of negative triangularity plasmas on DIII-D using SOLPS-ITER - [Jeremy LORE](#)

**P2-063 First-principles modeling study of tungsten boronization coating and effect on hydrogen behavior - Li YANG**

P2-064 SOL width broadening driven by fluctuation intensity flux in small ELM regime - [Nami LI](#)

**P2-065 Towards a resilient divertor for the HSX stellarator - Dieter BOEYAERT**

P2-066 The first application of flush probe arrays on HL-3 tokamak - [Longwen YAN](#)

**P2-067 Investigation on behaviors of atomic reactions in the divertor region with an innovative diagnostic system - Laizhong CAI**

P2-068 The mass threshold for real-time wall conditioning through boron powder injection in EAST with full metal wall - [Wei XU](#)

**P2-069 Simulation and experiment study of helium plasma transport during ion cyclotron resonance heating in MPS-LD - Changjiang SUN**

P2-070 Density dependence of convection in parallel heat transport in the Scrape-Off Layer of JT-60U - [Ryota MATOIKE](#)



## Poster Session 2 : May 14th, 2024

---

P2-070 Density dependence of convection in parallel heat transport in the Scrape-Off Layer of JT-60U - [Ryota MATOIKE](#)

**P2-071 Lithium pellet injections in the HL-2A tokamak - [Zhuang LIU](#)**

P2-072 Experimental and Numerical assessments of ICRF-enhanced Plasma-Wall Interaction in ASDEX-Upgrade - [Guillaume URBANCZYK](#)

**P2-073 Comparing various plasma edge codes for predictions of ITER low-power divertor operation - [Xavier BONNIN](#)**

P2-074 Assessment of ITER baking cycle efficiency for fuel removal using JET ILW components - [Yevhen ZAYACHUK](#)

**P2-075 Beneficial effects of helium in tungsten in context of fusion plasma-wall interaction - [Guang-Hong LU](#)**

P2-076 Interpretation of JET-ILW L-mode deuterium and helium plasmas using SOLPS-ITER - [David REES](#)

**P2-077 Influence of controlled-atmosphere oxide growth on Eurofer97 tritium retention - [Floriane MONTUPET-LEBLOND](#)**

P2-078 Impact of nitrogen molecular breakup on divertor conditions in JET L-mode plasmas using SOLPS-ITER, EDGE2D-EIRENE and ERO2.0 - [Roni MÄENPÄÄ](#)

**P2-079 Quantitative Separation of Deuterium and Helium in Plasma Facing Materials Using Long Pulse Laser Combined with Standard-Resolution Quadrupole Mass Spectrometer - [Yan LYU](#)**

P2-080 Modelling of the X-Point Radiator Configuration in DTT with SOLEDGE2D-EIRENE - [Luca BALBINOT](#)

**P2-081 Some results from the MPEX Digital Twin - [Juergen RAPP](#)**

P2-082 A study of tungsten UTA spectra around W20+ for ITER edge plasma impurity diagnostics through EUV spectroscopy and atomic structure calculation - [Ryota NISHIMURA](#)

**P2-083 Tungsten sources and plasma contamination in WEST diverted L-mode scenarios: status of experimental and modelling activities - [Nicolas FEDORCZAK](#)**

P2-084 Numerical studies of the power-sharing during MAST L-mode discharges - [Qian XIA](#)

**P2-085 Simulations of the ITER scrape-off layer plasma up to the first wall with SOLPS-ITER - [Wouter DEKEYSER](#)**

P2-086 SOLPS-ITER simulations of the ITER divertor with improved plasma-facing component geometry - [Andrei PSHENOV](#)

**P2-087 Initial Results from Spectroscopic Investigation of Plasma-Molecular Interaction on DIII-D Detached Divertor Plasma - [Nandini YADAV](#)**

P2-088 Spectroscopic Neutral Density Measurements of the DIII-D Divertor and Comparison to Modeling - [Dinh TRUONG](#)

**P2-089 Thermal and statistical analysis of the high-Z tungsten-based UFOs observed during the deuterium high fluence campaign of the WEST tokamak - [Jonathan GASPARD](#)**

P2-090 Coupled modelling of surface evolution and GTR plasma impurity transport to model silicon erosion from silicon carbide surfaces - [Aritra DE](#)

**P2-091 Exploring the influence of morphology in the sputtering process of tungsten by GyM helium plasma - [Andrea UCCELLO](#)**

P2-092 Numerical assessment of ICRF-specific Plasma-Wall Interaction in the new ITER baseline using the SSWICH-SW code - [Laurent COLAS](#)

**P2-093 Gas puff imaging measurements of plasma turbulence of the scrape-off-layer plasma on W7-X - [Seung-Gyou BAEK](#)**

P2-094 Development of a spatial heterodyne spectrometer for time-resolved measurement of Zeeman effect on H $\alpha$  emission line spectra - [Mengnan XU](#)

**P2-095 Experiment-modeling studies comparing energy dissipation in the DIII-D SAS and SAS-VW divertors - [Dan THOMAS](#)**

P2-096 New Understanding of Detachment Bifurcation via UEDGE Simulations - [Menglong ZHAO](#)

**P2-097 Code Comparison Study of Tritium Migration Analysis Program (TMAP) - [Masashi SHIMADA](#)**

P2-098 Detection of defects and deuterium in displacement-damaged tungsten by applying Rutherford backscattering spectroscopy and nuclear reaction analysis in channeling configuration - [Sabina MARKELJ](#)

**P2-099 Evaluation of a laser speckle interferometry-based diagnostic system for wall surface variation in Tokamak device - [Sherly CUI](#)**

P2-100 Mirrors Dual Cleaning of ITER's Equatorial Wide Angle Viewing System diagnostic - [Laurent MAROT](#)

**P2-101 Post-mortem analysis of the erosion/deposition pattern on ITER-like W-monoblock from the WEST divertor - [Pavlos TSAVALAS](#)**

P2-102 Wall conditions in WEST during operations with a new ITER grade, actively cooled divertor - [Alberto GALLO](#)

**P2-103 A new linear plasma device for high flux plasma irradiation in ASIPP - [Xin YANG](#)**

P2-104 Plasma heat load in the toroidal gaps of the ITER-grade plasma facing units in WEST tokamak. - [Quentin TICHIT](#)

**P2-105 First SOLEDGE3X-EIRENE simulations of the ITER neon seeded burning plasma boundary - [Srikanth SURESHKUMAR](#)**

P2-106 Combined effect of 7 MeV W ions, helium plasma and transient thermal loads on the surface and microstructure of the swaged tungsten materials - [Youyun LIAN](#)

**P2-107 W Leakage from the DIII-D SAS-VW Divertor to the Core and Scrape-Off Layer - [Seth MESSER](#)**

P2-108 Spatially-resolved TALIF measurements of atomic hydrogen density, temperature, and velocity in the UPP linear device - [Kaden LORING](#)

**P2-109 Blob structures, intermittent fluctuations and broad profiles in the scrape-off layer of high-density Alcator C-Mod plasmas - [Aurora HELGELAND](#)**

P2-110 Study of dust generation rate in EAST using CCD Cameras - [Hongyan PAN](#)

**P2-111 Towards real-time control of radiative loss-processes in the divertor using machine-learning accelerated multi-spectral image processing - [Jesse KOENDERS](#)**

P2-112 The lithium vapor 'cave': optimizing the lithium vapor box for near-term deployment - [Eric EMDEE](#)

**P2-113 Towards an innovative plasma-facing component sustaining unmitigated ELMs and 40 MW/m<sup>2</sup> steady-state - [Jan HORACEK](#)**

P2-114 Current status of the pre-damaged components in WEST: from surface texture evolution to macro-cracks length identification - [Alan DURIF](#)

**P2-115 The path to high-fidelity numerical modelling of exhaust issues in magnetic fusion devices: challenges, state-of-the-art and perspectives - [Patrick TAMAIN](#)**

P2-116 Modeling turbulent impurity transport in the scrape-off-layer of DIII-D - [Shawn ZAMPERINI](#)

**P2-117 Fluid modeling of plasma-neutrals turbulence in detached regimes - [Konrad EDER](#)**

P2-118 Fluctuation Entrainment in Tokamak Scrape-Off Layers: Implications for SOL Width and Detachment - [Xueqiao XU](#)

**P2-119 Advances in understanding of impurity transport in the boundary plasma of EAST - [Guoliang XU](#)**

P2-120 Advances in understanding impurity sources, transport, and power exhaust physics using a tungsten-coated slot divertor on the DIII-D tokamak - [Tyler ABRAMS](#)

**P2-121 3D SOLEDGE3X-ERO2.0 simulations for tungsten sources and migration in WEST discharges and comparison with experimental data - [Guido CIRAULO](#)**

P2-122 Modelling global <sup>13</sup>C tracer migration in W7-X using ERO2.0 - [Juri ROMAANOV](#)

**P2-123 Validating reduced models for detachment onset and reattachment timescales - [Stuart HENDERSON](#)**

P2-124 Experimental confirmation of island geometry effects on detachment in W7-X - [Victoria WINTERS](#)

**P2-125 Extend from partial to deep energy detachment with protection of the entire new corner slot tungsten divertor on EAST - [Kedong LI](#)**

P2-126 Understanding and predicting the benefit of long-legged divertors on MAST-U - [Verhaegh KEVIN](#)

**P2-127 Existence of the detachment cliff at ASDEX Upgrade - [Luca SCOTTI](#)**



## Poster Session 3 : May 16th, 2024

---

- P3-001 High particle flux irradiation facility using Applied-Field MPD thruster for studying blister formation and deuterium retention - Kil-Byoung CHAI**
- P3-002 Model predictive density profile control with discrete fuel pellets in integrated simulation. - Christopher ORRICO
- P3-003 High-heat-flux performance of monoblock target prepared with advanced W-K plate - Fan FENGF**
- P3-004 Wall conditions on HL-2A and HL-3 tokamaks - Chengzhi CAO
- P3-005 Investigation of plasma-wall interaction by an extreme-wide angle view diagnostic on the HL-3 tokamak - Liang LIU**
- P3-006 Improved erosion estimates for the STEP divertor - Andreas KIRSCHNER
- P3-007 Active spectroscopy on Magnum-PSI to characterize neutral particles in detached conditions - Ivo CLASSEN**
- P3-008 Fast Langmuir probe measurements of the bifurcation to the X-point radiator regime in the WEST tokamak - Federica CAUSA
- P3-009 Leading edge cracks on bulk tungsten divertor components during WEST phase 1 - Mathilde DIEZ**
- P3-010 Liquid Lithium Divertor Analysis using Coupled Plasma Material Interaction Model - Andrei KHODAK
- P3-011 Numerical investigation of Plasma-Material Interaction in GyM linear device through SOLPS-ITER and ERO2.0 codes - Fabio MOMBELLI**
- P3-012 SOLPS-ITER predictions for power and particle exhaust in COMPASS Upgrade tokamak Irina BORODKINA
- P3-013 Multispectral imaging for improved inference of hydrogenic particle and power sources and sinks in the MAST-U super-X divertor - Tijs WIJKAMP**
- P3-014 Coalescence of nanovoids diffusing in a bcc matrix - Stefano CURIOTTO
- P3-015 ERO2.0 investigation on divertor erosion and tungsten core contamination in the DTT tokamak - Gabriele ALBERTI**
- P3-016 Properties of boron layers deposited during boronisations in W7-X - Matej MAYER
- P3-017 Studies of the material erosion and deposition using quartz crystal microbalance in EAST - Yuming LIU**
- P3-018 Investigations of tungsten dust production by arcing using high-speed video - Alberto CASTILLO CASTILLO
- P3-019 A novel hybrid poloidal-toroidal divertor for tokamaks - Richard MAJESKI**
- P3-020 Retarded recrystallization and orientation dependent ridge-like nanostructure formation in helium-implanted tungsten - Long CHENG
- P3-021 Wall conditioning and tritium recovery approach planned for SPARC - Adam KUANG**
- P3-022 The effect of the radio frequency sheath on the sputtering of plasma facing antenna materials\* - John CAUGHMAN
- P3-023 Total and poloidal flux expansion studies in TCV - Massimo CARPITA**
- P3-024 Investigation of the effect of plasma flow on the properties of the first wall of thermonuclear reactors - Aigerim TAZHEN
- P3-025 High Heat Flux Testing of Dispersoid-Strengthened Tungsten Alloys - Chase HARGROVE**
- P3-026 Modeling the onset of fuzz formation in plasma-facing tungsten - Dwaipayan DASGUPTA
- P3-027 Evaluating helium clustering kinetics in cluster dynamics simulations benchmarked with experimental results from low-dose rate helium implantation - Brian WIRTH**
- P3-028 Effect of MeV D and He ion fluxes on damage of and fuel retention in tungsten - Sophie BLONDEL
- P3-029 Optimization of the poloidal shape of the main chamber first wall for the nominal operation of a Fusion Pilot Plant - Giacomo DOSE**
- P3-030 SOLPS-ITER Simulation of Plasma-Divertor Detachment Experiment in KSTAR through Argon Gas Injection - Chanyeong LEE
- P3-031 Modeling dissipative divertor designs for DIII-D with a particle pump duct located upstream of the target - Jonathan YU**
- P3-032 Measurement of Erosion Rate of Tungsten Using Multiple Line S/XB Method - Changmin SHIN
- P3-033 Changes in core and far-SOL W concentration with BT direction during the DIII-D SAS-VW campaign - Jeremy MATEJA**
- P3-034 Investigating emissivity evolution of uncoated and Li-coated PFCs for IR thermography - Promise ADEBAYO-IGE
- P3-035 High-performance computing modeling of impurity transport in boundary plasma at DIII-D - Jerome GUTERL**
- P3-036 Investigation of core accumulation of tungsten impurity in EAST by kinetic and fluid modeling - Qingrui ZHOU
- P3-037 Quantum Electron Dynamics in Helium Ion Injection onto Tungsten Surfaces by Time-Dependent Density Functional Theory - Atsushi ITO**
- P3-038 Analysis of asymmetry in particle load on divertor tiles in LHD - Tsukasa SUGIYAMA
- P3-039 Interpretive modeling of tungsten erosion and scrape-off layer transport from DIII-D V-shaped small angle slot divertor - Greg SINCLAIR**
- P3-040 SOLPS-ITER simulation of heat flux reduction in KSTAR H-mode plasmas by krypton seeding - Jun Hyeok YOON
- P3-041 Hydrogen isotope permeation through W with surface fuzz structure - Xuechun LI**
- P3-042 Global impurity migration of locally generated impurity in JT-60U by SONIC simulation - Ryuichi SANO
- P3-043 SOLEDGE-HDG : a Hybrid Discontinuous Galerkin framework for modelling transport and plasma/wall interaction - Frederic SCHWANDER**
- P3-044 Toward improving cross-field turbulent transport modelling in fluid simulations of tokamak: a k-epsilon model in SOLEDGE3X - Eric SERRE
- P3-045 An approach to mimic W fuzz from AUG He plasma in a PSI-2 linear plasma device - Marcin RASIŃSKI**
- P3-046 Edge plasma turbulence simulations in high density regimes - Virginia QUADRI
- P3-047 Numerical Investigation of Hydrogen Molecule Release in High Rovibrational States from Tungsten Walls - Hiroaki NAKAMURA**
- P3-048 Effect of joining heat treatments on deuterium permeation and retention in CuCrZr alloys - Zi-Han TAO
- P3-049 Impurity study to assess N=1D ICRF heating scenario in T-rich plasmas with D-beams during JET-ILW DTE2 experimental campaign - Agata CHOMICZEWSKA**
- P3-050 Hydrogen isotope retention and surface characterization at LHD first wall after the partial installation of tungsten divertor tiles - Miyuki YAJIMA
- P3-051 Testing of advanced tungsten materials under high particle flux and intense transients in the DIII-D divertor - Zana POPOVIC**
- P3-052 The first tungsten divertor experiment at the KSTAR tokamak - Hyungho LEE
- P3-053 Testing the functional capabilities of the liquid metal in-vacuo injection system - Ama DAHANAYAKE**
- P3-054 Hydrogen retention in vacancy clusters and its impact on clustering dynamics for the ITER divertor monoblocks - Jonathan MOUGENOT
- P3-055 Experimental study on tungsten behavior with boron wall conditioning in EAST tokamak - Yunxin CHENG**
- P3-056 Helium plasma pre-exposure effects on the deuterium low-temperature desorption on tungsten - Kota SAITO
- P3-057 Evaluation of erosion and re-deposition on the W-monoblock of JA DEMO divertor - Makoto OYA**
- P3-058 Global tungsten erosion and impurity migration modeling for the DEMO with the ERO2.0 code - Christoph BAUMANN
- P3-059 Effect of surface damage accumulation by energetic ion implantation on hydrogen isotope in tungsten-tantalum alloy for advanced plasma facing material - Okumura SHINGO**
- P3-060 Poloidal distribution of material erosion and deposition at the lower graphite divertor after 2019 experimental campaign in EAST - Wei ZHENG
- P3-061 Boronizations with glow discharge and with boron powder dropping in LHD - Suguru MASUZAKI**
- P3-062 ERO2.0 predictions of nickel migration in the JET-ITER-Like Wall - Pyy VIRTANEN
- P3-063 Analysis of atomic hydrogen density based on hydrogen visible line spectroscopy and collisional-radiative model - Keigo YOSHIMURA**
- P3-064 Fully detached plasma formation in a divergent magnetic field configuration on a divertor simulator TPDsheet-U - Akira TONEGAWA



## Poster Session 3 : May 16th, 2024

---

- P3-065 Simultaneous high-speed camera observation of spatio-temporal emission profiles of H $\alpha$ , H $\beta$  and H $\gamma$  in GAMMA 10/PDX divertor simulated plasma - Satoshi TAKAHASHI**
- P3-066 Characterization of detachment based on the Balmer line ratios in JET-ILW L-mode plasmas - Vesa-Pekka RIKALA
- P3-067 Coexistence of H-MAR and N-MAR in Divertor Simulation Module of GAMMA 10/PDX - Takuma OKAMOTO**
- P3-068 Optimization of the Compact Radiative Divertor configuration - Tilmann LUNT
- P3-069 Simulation of the effect of real-time lithium powder injection on tungsten target erosion in EAST - Yudie HE**
- P3-070 A DFT model of the W(110)/Cu(111) interface - José David CREMÉ ANGEL BELLO
- P3-071 Tomographic reconstructions of the 2D emission distributions of impurity with EAST visible tangential wide-angle viewing systems - Baoguo WANG**
- P3-072 Scaling of the scrape-off layer width and spreading factor in MAST-U compared to MAST - Sarah ELMORE
- P3-073 Machine learning scattering kernels of neutrals reflected from plasma facing components - Dimitris VALOUGEORGIS**
- P3-074 Statistical analysis of scrape-off-layer (SOL) power drop-off width in ST40 H-mode plasmas and observation of very narrow SOL widths - Xin ZHANG
- P3-075 Feasibility study on spectroscopic measurement of neon radiation fronts in ITER plasmas using Divertor Impurity Monitor - Kunpei NOJIRI**
- P3-076 Inferring the scrape-off layer heat flux width,  $\lambda_q$ , in ST40 using the InFRa-Red InvestigaTive ANalysis Toolchain – IRRITANT - Chris MARSDEN
- P3-077 In-situ heating investigation of heavy-ion irradiated ITER-grade tungsten - Koray IROC**
- P3-078 Benchmarking SOLPS-ITER and SONIC edge transport codes in JT-60SA tokamak plasma conditions - Giulio RUBINO
- P3-079 Determination of tritium inventory in the carbon divertor plates used in deuterium plasma experiment by induction heating method - Masahiro TANAKA**
- P3-080 Hydrogen isotopic ratio by residual gas analysis during changeover experiments in west - Gabriele GERVASINI
- P3-081 Spectroscopic measurement of boron-layer lifetime after boronization in DIII-D - Adam MCLEAN**
- P3-082 A preliminary step towards the three-dimensional simulation of scrape-off layer plasma transport using finite volume method - Jiafeng HE
- P3-083 ST40 tool for IR thermography: FAHF - Matthew ROBINSON**
- P3-084 Evolution of radiative detachment in MAST-U - Fabio FEDERICI
- P3-085 Heat and particle exhaust in double-null configuration in WEST: Experimental study and modeling with SOLEDGE3X-EIRENE - David MOIRAF**
- P3-086 Numerical Modeling Of Impurity Powder Injection In W7-X - Federico NESPOLI
- P3-087 Effects of W and B deposition on the performance of single and polycrystalline diagnostic mirrors - Per PETERSSON**
- P3-088 Mean-field drift transport in circular geometry in SOLPS-ITER: code vs analytical expressions - Sergei MAKAROV
- P3-089 Flexible CRM module associated with the EIRENE-NGM - Dmitriy BORODIN**
- P3-090 Integrated numerical modelling of highly radiative H-mode scenarios for JT-60SA tokamak using SOLEDGE3X-EIRENE and METIS codes - Ludovica DE GIANNI
- P3-091 Gas puff location leading to symmetric and asymmetric divertor conditions in MAST-U - Hang SI**
- P3-092 First spectroscopic analysis of hydrogen molecules in the island divertor of Wendelstein7-X - Sebastijan BREZINSEK
- P3-093 Balmer emission measurements in JET-ILW hydrogen, deuterium, tritium and deuterium-tritium low-confinement mode plasmas - Andrew MEIGS**
- P3-094 Radiation Dependence of Divertor Leg Length in Detachment on DIII-D - Morgan SHAFER
- P3-095 First measurements of transient grating spectroscopy on tungsten during high flux plasma operation in PISCES-RF - Michael SIMMONDS**
- P3-096 Evaluation of a macroscopically textured wall tile for reduced net erosion and impurity release - Jonathan COBURN
- P3-097 Access to detached divertor condition in negative triangularity discharges in the DIII-D tokamak - Filippo SCOTTI**
- P3-098 Investigation of the effect of wall temperature on deuterium outgassing in the JET ITER-Like Wall using the DWE code. - Julien DENIS
- P3-099 Characterization of detached divertor conditions and heat flux width in high heat flux experiments on DIII-D - Auna MOSER**
- P3-100 Measurements of a low recycling edge in the Lithium Tokamak Experiment- $\beta$  with liquid lithium walls - Anurag MAAN
- P3-101 Dynamic retention and release of deuterium in/from tungsten: effect of the surface - Matthieu LATOURNERIE**
- P3-102 Influence of tungsten substrate on the dynamic hydrogenic retention in lithiated porous tungsten - Camila LOPEZ PEREZ
- P3-103 Laser induced breakdown spectroscopy and secondary ion mass spectrometry comparison for impurities detection in jet limiter samples - Pavel VEIS**
- P3-104 Exploring advanced divertor configurations as reactor power exhaust solutions using edge simulations of SPARC and ARC - Michael WIGRAM
- P3-105 The Dependence of Plasma Exposure Conditions on Hydrogen Retention in Dispersion-strengthened Tungsten Materials - Carli SMITH**
- P3-106 Analysis of GTR simulated W erosion and comparison with spectroscopy in the DIII-D SAS-VW divertor for four cases as a step toward validation - Alyssa HAYES
- P3-107 First Wall Diagnostics for Tokamak with Reactor Technologies (TRT): Erosion Monitor and Fuel Inventory Control - Alexey RAZDOBARIN**
- P3-108 Coupling Fluid Plasma and Kinetic Neutral Models using Correlated Monte Carlo Methods - Gregory PARKER
- P3-109 Recent progresses of liquid metal PFCs in fusion devices - Jiansheng HU**
- P3-110 Behaviour of liquid tin in laboratory plasmas and ASDEX Upgrade - Ralph DUX
- P3-111 Achievement of key steps toward low-recycling, liquid lithium fusion devices in the Lithium Tokamak Experiment- $\beta$  - Dennis BOYLE**
- P3-112 D retention in Li-D co-deposits and outgassing: experiments on Magnum-PSI and DIII-D - Maria MORBEY
- P3-113 Overview of fuel retention and recovery in jet deuterium-tritium operation - Anna WIDDOWSON**
- P3-114 Depth-resolved measurement of hydrogen isotope retention in pre-damaged tungsten using Laser-Induced Breakdown Spectroscopy - Erik WÜST
- P3-115 Hydrogen isotopes in fusion-relevant materials: from the atom to the macroscopic scale, from the inside of the monoblocks to the boundary with the plasma - Yves FERRO**
- P3-116 Study of tritium permeation in Eurofer97: combining inventory and permeation experiments with multiscale modelling for H/D/T behavior characterization - Elodie BERNARD
- P3-117 Recent tungsten PMI studies for ITER and fusion reactors - Yoshio UEDA**
- P3-119 Machine learning assisted micro-to-meso-to-macro scale fracture modeling in tungsten plasma facing materials# - Rinkle JUNEJA
- P3-120 Tungsten monoblock performance under slow transient loading conditions in Magnum-PSI - Thomas MORGAN**
- P3-121 Digital twin of edge tokamak diagnostics for heat exhaust prediction - Anna GLASSER
- P3-122 Electron and Ion kinetic profile evolution in a TCV divertor toward detachment - Basil DUVAL**
- P3-123 Measurements of the divertor ion temperature distribution in the W7-X stellarator - Matt KRIETE
- P3-124 The separatrix electron density in JET, AUG and C-Mod H-mode plasmas: a common evaluation procedure and correlation with engineering parameters - Davide SILVAGNI**
- P3-125 Flow structures in the island divertor of Wendelstein 7-X measured with gas puff imaging and electric probes - Sean BALLINGER
- P3-126 The quasi-continuous exhaust regime in ASDEX Upgrade and JET - Michael FAITSCH**
- P3-127 Compatibility of neon seeding effects on divertor detachment and core performance in EAST - Fang DING
- P3-128 First achievement of highly radiating plasmas in negative triangularity - Livia CASALI**
- P3-129 Separatrix ion to electron temperature ratio in the TCV and ASDEX Upgrade tokamak - Marco CAVEDON
- P3-130 Validation of a divertor physics parameter-based separatrix density scaling approach using the JET-ILW H-mode pedestal database - Bartosz LOMANOWSKI**



## Poster Session 4 : May 17th, 2024

**P4-001 Simulations of tungsten fuzz growth and erosion under He/Ar mixed plasma irradiation on LP-MIES - Shuyu DAI**

P4-002 Three-dimensional simulation of plasma transport in HIT-PSI device with EMC3-EIRENE - Zixuan WEN

**P4-003 Forced convection effects on particles and heat transport in liquid metals under steady state plasma bombardment - Yoshi HIROOKA**

P4-004 Simulation study on the influence of divertor plasma in EAST with fueling pellet injection - Weikang WANG

**P4-005 Simulation of low-n modes driven by impurity instability in tokamak edge plasmas using Hermes-3 - Huayi CHANG**

P4-006 Assessing toroidal radiation asymmetries in Wendelstein 7-X by combining multiple bolometer diagnostics - Gabriele PARTESOTTI

**P4-007 Analysis of a kinetic radiation operator for gyrokinetic codes - Jonathan ROELTGEN**

P4-008 Impurity behaviour in JET high-current baseline scenario for Deuterium, Tritium and Deuterium-Tritium plasmas. - Natalia WENDLER

**P4-009 Surface temperature of a plasma facing tungsten surface calculated by means of 1D and 2D PIC simulations. - Jerome MORITZ**

P4-010 Numerical convergence study of an EU-DEMO plasma-edge simulation with kinetic neutrals in SOLPS-ITER - Wim VAN UYTVEN

**P4-011 Investigation of the effective ion collecting area associated with the sheath expansion for the newly designed KSTAR tungsten divertor Langmuir probes - Seungmin BONG**

P4-012 Spatial structure of helium recombining plasma around recombination front in DT-ALPHA device - Hiroyuki TAKAHASHI

**P4-013 Magnetised plasma erosion pattern on semi-circular electrodes - Tomás CORREIA SOUSA**

P4-014 Test operation of a novel time-of-flight mass spectrometer in the gas exhaust of Wendelstein 7-X - Georg SCHLISIO

**P4-015 Transient grating spectroscopy as a predictor for tungsten fuzz growth - Angus WYLIE**

P4-016 Impact of temperature ramp-up on tungsten restoration kinetics - Maxime LEMETAIS

**P4-017 Characterizing Ion Temperatures In The MAST-U Divertor - Yacopo DAMIZIA**

P4-018 Spectroscopic investigations of impurity concentration in seeded divertor plasmas of W7-X via line ratio spectroscopy - Frederik HENKE

**P4-019 Deuterium retention and structure change in W-Cr-Y alloys: effect of annealing and damaging by heavy ions - Olga OGORODNIKOVA**

P4-020 Detachment onset in coupled Yacora-SOLPS-ITER simulations - Joseph BRYANT

**P4-021 Plasma Diagnosis Based on Molecular Hydrogen Spectrum with Detailed Collisional-Radiative Modeling - Keisuke FUJII**

P4-022 Options for detachment and density control in ITER - Timo RAVENSBERGEN

**P4-023 Topographic effect on hydrogen absorption in WMoTaNbV high-entropy alloy - Anna LISKI**

P4-024 Design of CARS diagnostic for measuring rovibrational populations of hydrogen in divertor-relevant plasmas - Kay SCHUTJES

**P4-025 Preliminary design of Glow Discharge Cleaning anodes for ITER - Yu YANG**

P4-026 Initial testing of diboride ultra-high temperature ceramics as plasma facing materials for fusion reactors - Lauren NUCKOLS

**P4-027 Boundary plasma studies for a spherical tokamak with lithium walls - Abetharan ANTONY**

P4-029 Analysis of high-field side plasma instabilities in tokamak edge - Maxim UMANSKY

**P4-030 Demonstration of a novel linear inversion of the convection diffusion equation for a single transported species - Edward HINSON**

P4-031 Dynamic response model of the radiative feedback control by LSTM on EAST - Kai WU

**P4-032 High order insulating sheath boundary condition for continuum finite volume codes - Vasily GEYKO**

P4-033 Molecular dynamics simulation-based machine learning model for hydrogen recycling on tungsten wall - Seiki SAITO

**P4-034 Hydrogen-Resistant Thin Films: How Transition Metal Carbides Withstand Hydrogen Radicals (H\*) Exposure - Abdul REHMAN**

P4-035 Characterizing and understanding movement of MARFE at EAST plasma boundary - Bingcheng QI

**P4-036 Hydrogen retention investigation in ITER monoblock using Lattice Boltzmann method - Muyi NI**

P4-037 Neutral Pressure Measurement Near New KSTAR Divertor Region Using Crystal Cathode Pressure Gauges - Hoiyun JEONG

**P4-038 Recombination front formation and control in a pulse-operating ECR plasma - Atsushi OKAMOTO**

P4-039 Experimental diagnostics on the absolute density of atomic hydrogen and electron by Two-photon absorption laser induced fluorescence and THz spectroscopy - Zhiwei WANG

**P4-040 Characteristics of double-peaked WD molecule sputtering at divertor target plates in the EAST tokamak - Qing ZHANG**

P4-041 Numerically evaluating the impact of divertor geometry on the target heat load in a snowflake-minus configuration at the reactor scale - Haosheng WU

**P4-042 Preliminary studies on the control of direct-current glow discharge plasmas by magnetic field towards fusion wall conditioning - Hao SUN**

P4-043 SOLPS-ITER modelling of the ST40 edge plasma - Elena VEKSHINA

**P4-044 Core-edge transport modeling of a full WEST discharge with SOLEDGE-HDG - Ivan KUDASHEV**

P4-045 JET RESIDUAL GAS ANALYZER CALIBRATION DURING LID-QMS OPERATIONS - Laura LAGUARDIA

**P4-046 XPS post-mortem analysis of plasma-facing units extracted from WEST - Alexandru Horia MARIN**

P4-047 The design of 3D-printing solid tungsten-liquid lithium combined divertor target plate and its interaction with high-density plasma - Zongbiao YE

**P4-048 Comprehensive analysis of synthetic optical diagnostics including reflections for understanding plasma-facing component erosion in fusion devices - Curtis JOHNSON**

P4-049 Interpretive modeling of Grassy ELM transport in the scrape-off layer and its influence on divertor erosion - Jinheng ZHAO

**P4-050 Single and nano-crystal mirrors under steam ingress and cyclic plasma cleaning test - Artem DMITRIEV**

P4-051 Erosion and redeposition of Li from a liquid metal wall facing a magnetized plasma - Romain AVRIL

**P4-052 Steady-state heat flux load predictions on ST40 divertor PFCs using HEAT code and SOLPS-ITER - Erin TINACBA**

P4-053 Study of wall material evolution under the lithium coating condition for long pulse discharges in EAST - Junling CHEN

**P4-054 OpenEdge: a state-of-the-art Monte Carlo code for impurity transport modeling in fusion environments - Abdourahmane DIAW**

P4-055 Helium enrichment and tritium burn efficiency in simulations of divertor plasmas - Rebecca MASLINE

**P4-056 Preliminary ERO2.0 Li, Sn and W erosion and transport simulations for the COMPASS Upgrade tokamak - Samuel LUKES**

P4-057 Experiments on investigation of interaction of deuterium with Sn73Li27 tin-lithium alloy - Inesh KENZHINA

**P4-058 Soledge3x integrated core-edge transport modelling of tungsten sources, migration, and radiation in west plasmas - Naren VARADARAJAN**

P4-059 Modeling input to the ITER glow discharge boronization system design - Tom WAUTERS

**P4-060 Implementation of an enhanced two-population fluid neutral model in the new BOUT++ code Hermes-3 and comparison to SOLEDGE2D-EIRENE - Mike KRYJAK**

P4-061 Assessment of the WEST plasma impact on the tungsten softening and cracking of the ITER grade divertor - Marianne RICHOU

**P4-062 LIBS depth analysis of W based samples using laser flat top beam profile - Sahithya ATIKUKKE**

P4-063 Hydrogen isotope behavior in tungsten and tungsten-containing high entropy alloy as plasma facing materials - Minyou YE

**P4-064 SICAS, a new code featuring SOLPS-ITER coupled to ASTRA-STRAHL for integrated plasma transport modeling - Austin WELSH**

P4-065 Effect of low-energy He/D plasma irradiation on WTaVCr and WTaVCrTi multi-component alloys - Chao YIN

**P4-066 Main chamber fueling asymmetries in DIII-D H-mode plasmas - Laszlo HORVATH**

P4-067 Deuterium-helium mixed plasma irradiation on surface modification of ZrC dispersion-strengthened tungsten - Ze CHEN

**P4-068 Analysis of power balance and divertor asymmetries in MAST-U using SOLPS-ITER - Ivan PARADELA PEREZ**

P4-069 Analytic optimization of far-SOL main-wall protection limiters for pilot plant tokamaks - Jacob NICHOLS

**P4-070 Study of the plasma-wall interaction in the PLM divertor simulator. - Dmitry KAVYRSHIN**

P4-071 Study of line spectra emitted by hydrogen isotopes in tokamaks through Deep-Learning algorithms - Mohammed KOUBITI

**P4-072 SOLPS-ITER simulations of AUG experiments with a liquid Sn module - Giuseppe Francesco NALLO**

P4-073 Incident ion angle and lithium redeposition on the plasma facing component in Lithium Tokamak eXperiment (LTX)- $\beta$  under liquid lithium wall operation - Euichan JUNG



## Poster Session 4 : May 17th, 2024

---

**P4-074 Scoping core-edge integration for SPARC scenarios - Tom BODY**

P4-075 In-situ experiments on helium pumping in systems with lithium-coated surfaces - Matthew PARSONS

**P4-076 Differences between static and dynamic SOL parallel transport - Jernej KOVACIC**

P4-077 Validation of spacecraft heat shield ablation models for use in fusion devices - Evdokiya KOSTADINOVA

**P4-078 Experimental Characterization of Neutron Irradiated Tungsten Using Laser Ablation Mass Spectroscopy, Gas-Driven Permeation, and Thermal Desorption Spectroscopy - Kailee COLLINS**

P4-079 Initial design concepts for solid boron injection in ITER - Joseph SNIPES

**P4-080 Experimental measurements of Sn thermally enhanced sputtering yields at Nano-PSI - Jan CECRDLE**

P4-081 Determining radiative loads in the ITER divertor structures - Y. LIDA

**P4-082 Improved Coulomb collision operator for kinetic ion transport with EMC3-EIRENE simulating Nitrogen seeding in medium density ITER L-mode scenario - Derek HARTING**

P4-083 Applications of Residual Gas Analyser for multiple ITER diagnostic systems - Xi JIANG

**P4-084 Update on IAEA activities on plasma-surface interactions and plasma edge processes - Kalle HEINOLA**

P4-085 ITER Boundary Imaging System – design, prototyping and R&D highlights - Priyanka JENA

**P4-086 X-point radiation: from discovery to potential application in a future reactor - Matthias BERNERT**

P4-087 Systematic design of controllers for the X-point radiator using system identification in AUG, JET D and D-T operation - Thomas BOSMAN

**P4-088 High current Neon-seeded ITER baseline scenario in JET D and D-T - Carine GIROUD**

P4-089 Validation of SOLPS-ITER and EDGE2D-EIRENE simulations for H, D, and T JET ITER-like wall low-confinement mode plasmas - Niels HORSTEN

**P4-090 Charge-exchange deuterium flux to the main chamber wall and its induced material erosion in EAST - Rui DING**

P4-091 Time-resolved spectroscopic measurements of tungsten gross-erosion, re-deposition, and S/XB coefficients in the DIII-D tokamak - Ulises LOSADA RODRIGUEZ

**P4-092 Global modelling of helium Plasma-Wall Interaction experiments in ASDEX-Upgrade - Elena TONELLO**

P4-093 SOLPS-ITER modelling of helium transport, recycling and pumping in the ASDEX Upgrade divertor - Antonello ZITO

**P4-094 Power & particle exhaust limitations in W7-X and its relation to the density build-up - Felix REIMOLD**

P4-095 The separatrix operational space in ASDEX Upgrade and implications for power exhaust in SPARC - Thomas EICH