

Session Program

17-22 May 2026



27th PSI Conference
Regensburg 2026

27th PSI

Postersession 2

marinaforum REGENSBURG

Tuesday 19 May

16:20

Postersession 2: Tracks A, B, D, F, H, I and J

Poster Session

2.058 Influence of boron-containing films on optical and emissive properties of tungsten

Speaker

Sanah Hussain

2.105 Characterisation of steady state plasma at the linear plasma device - JULE PSI

Speaker

Rahul Rayaprolu

2.107 Improved modelling and sampling of particles reflected from non-planar surfaces

Speaker

Dr Udo von Toussaint

2.115 Modelling the Roles of Dislocations and Coalescence on the Nucleation and Growth of Helium Bubbles in Tungsten

Speaker

Ms Emna frikha

2.106 Centralized database on integrated testing of advanced materials in the DIII-D tokamak

Speaker

Gregory Sinclair

2.064 Measurements and OEDGE predictions of the scrape-off layer plasma conditions and Balmer emission in JET-ILW horizontal and vertical divertor plasma configurations

Speaker

Henri Kuivasniemi

2.108 Development of combined joint method for W/RAFM steel with copper intermediate layer

Speaker

Masayuki Tokitani

2.091 Fine-Tuning of Machine Learning Diagnostics of Electron Density and Temperature from Helium Line Emissions

Speaker

Shin Kajita

2.087 Spectral ellipsometry for in-vessel deposition measurements on plasma-facing components in Wendelstein 7-X

Speaker

Laura Dittrich

2.063 Deuterium Implantation and Thermal Extraction in the Actively Pumped Open-Surface Lithium Loop (APOLLO)**Speaker**

Braden Moore

2.054 Chemical Erosion and Deuterium Retention of Boron Thin Films using in-situ Ion Beam Analysis in Upgraded Pilot-PSI**Speaker**

Jort van Kesteren

2.103 Evidence of Helium Retention by Lithium Interaction in EAST**Speaker**

Mr Haoxuan Yu

2.104 Dynamics of hydrogen isotope exchange in co-deposited LiD layers using operando ion beam**Speaker**

MARIA MORBEY

2.057 Analysis of Solid Boron Injection for ITER**Speaker**

Joseph Snipes

2.028 3D modeling of target-plasma interactions at oblique angles of incidence in MPEX-like linear plasma devices**Speaker**

Jake Nichols

2.101 Qualification of tungsten as plasma-facing components for COMPASS-U: Effects of laser and plasma damage on microstructure and deuterium retention**Speaker**

laura Laguardia

2.021 Design Considerations for Main Wall Plasma-facing Components in Magnetic-confinement Fusion Devices**Speaker**

Zeke Unterberg

2.027 The effect of the radio frequency sheath on the sputtering of plasma facing materials**Speaker**

John Caughman

2.102 Integrated SOLPS-ITER and ERO2.0 modelling of helium-tungsten plasma-surface interaction for an H-mode ASDEX Upgrade discharge**Speaker**

Andrea Mastrogirolamo

2.089 Poloidal flow measurement of impurity ions in DIII-D divertor**Speaker**

Keisuke Fujii

2.025 SURFACE DAMAGE OF ITER-GRADE TUNGSTEN UNDER SEQUENTIAL IRRADIATION WITH HELIUM ION BEAM AND HIGH HEAT FLUXES OF QSPA HYDROGEN PLASMA**Speaker**

Dr Vadym Makhlai

2.056 Chemical and physical properties of boron layers produced during non-uniform glow discharge boronization in the WEST tokamak**Speaker**

Dr Céline MARTIN

2.024 Characteristics of boron layers deposited during boronization and boron powder injection in KSTAR**Speaker**

SOOHYUN SON

2.051 Helium Topology Controlled Erosion of Tungsten Under High velocity Dust Impacts: Molecular Dynamics Insights**Speaker**

Dr Prashant Dwivedi

2.022 Two-point model with filamentary transport**Speaker**

Audun Theodorsen

2.055 First-in-kind plasma transport modeling of EC wall-conditioning of JT-60SA with EMC3-EIRENE code**Speaker**

Gakushi Kawamura

2.033 Survivability of boron dust and powder in edge fusion plasmas**Speaker**

Lorenzo Boccaccia

2.111 A Systematic Analysis of Runaway Electron Energy Deposition in Plasma-Facing Components**Speaker**

Mr Alessio Villa

2.081 EMC3-EIRENE predictions of radiative detachment scenarios in W7-X equipped with a tungsten based divertor**Speaker**

Daniil Ryndyk

2.083 Edge modelling of low and high radiative partially detached JET high power plasmas in the ITER-like configuration**Speaker**

Paolo Innocente

2.048 Experimental evidence of the loss of boronization effectiveness by plasma redeposition in WEST**Speaker**

Sean Kosslow

2.082 Impact of radiation trapping effect with spatial distribution on He I line intensity ratio method in the study on detached divertor plasma**Speaker**

Shogo Otsuka

2.079 Reconstructing the separatrix density in SPARC for pulse planning and control**Speaker**

Sean Ballinger

2.078 Quantification of SOL filamentary transport and parametric dependencies across different regimes in TCV.**Speaker**

Kaushlender Singh

2.077 Intensity-calibrated VUV spectroscopy at UPP in attached and detached hydrogen and deuterium plasmas**Speaker**

Roland Friedl

2.076 Surrogate boundary model development for KSTAR tungsten divertor operation based on SOLPS-ITER simulations**Speaker**

Chanyeong Lee

2.046 Reference boron layers for investigating the formation and characteristics of boron-based co-deposits in tokamaks**Speaker**

Antti Hakola

2.041 Limiter phase nickel migration in the JET ITER-Like wall**Speaker**

Pyy Virtanen

2.042 Thermal transition of W-on-W adhesion from van der Waals interactions to metallic bonding**Speaker**

Marco De Angeli

2.075 Comparison of experimental impurity radiation dynamics in the scrape-off layer of W7-X with EMC3-EIRENE simulations.**Speaker**

Kevin Andrea Siever

2.045 Neon retention in tungsten, boron and mixed thin-films under the effects of thermal annealing studied by isotopic tracing**Speaker**

Daniel Gautam

2.110 Microstructural and mechanical property characterization of tungsten fiber-reinforced copper alloys**Speaker**

Dr Hanns Gietl

2.095 Progress in high time and mass resolution mass spectrometry in Wendelstein 7-X

Speaker

Georg Schlisio

2.044 In-situ investigation of oxygen trapping in tungsten, boron and mixed thin-films during thermal annealing using ion beams

Speaker

Daniel Gautam

2.039 Net erosion of molybdenum coated ICRH limiter tiles in ASDEX-Upgrade

Speaker

Martin Balden

2.070 Predicting MANTIS performance in W7-X: Synthetic Modeling of the Expected Operational Regime Using EMC3-EIRENE

Speaker

Joey Louwe

2.118 Recent analysis of tungsten dust in ASDEX Upgrade

Speaker

Dr Sangeetha Sasidharan

2.067 Development of multi-diagnostic Bayesian analysis tool for inference of plasma parameters in the W7-X island divertor

Speaker

Linnéa Björk

2.069 Investigating the main dependencies in heat-flux decay length scalings using first-principles turbulence codes

Speaker

Hugo Corvoysier

2.036 β -decay induced self-charging of tritiated tungsten dust in fusion reactors

Speaker

Tommaso Rizzi

2.072 Collisional-radiative analysis of atomic and molecular hydrogen emissions for electron density and electron temperature diagnostics

Speaker

Dr Hiroyuki Takahashi

2.071 Recent improvements in EMC3-EIRENE modeling for divertor detachment in burning plasmas

Speaker

Heinke Frerichs

2.030 Fundamental quantities in ion-solid interaction at fusion relevant energies - interatomic potentials of Cr assessed using low-energy ions

Speaker

Athanasios Bamidis

2.066 Impact of Lyman opacity on divertor plasma and neutral conditions in DIII-D

Speaker

Mathias Groth

2.065 EMC3-Eirene simulation of neutral source effects on density build-up in the W7-X island divertor**Speaker**

Victoria Winters

2.093 Investigation of Deuterium Retention in Fe-Zr/Y Multilayers Using Femtosecond Laser-Induced Mass Spectrometry**Speaker**

Shweta Soni

2.119 Development of Retarding Field Analyzer for Spatial Distribution Measurements of Ion and Electron Temperature in Recombining Plasma**Speaker**

Shigetaka Kagaya

2.061 Molecular Dynamics Investigation of Carbon-Based Hydrogen Recycling Control in Plasma-Facing Walls**Speaker**

Prof. Hiroaki Nakamura

2.085 Multi-spectral coherence imaging to characterize the scrape-off layer flows in TCV and Magnum-PSI**Speaker**

Mark Cornelissen

2.086 Influence of 3 T magnetic field on RF plasma self-bias and erosion pattern for the ITER Wide Angle Viewing System**Speaker**

Tomás Sousa

2.019 Quantifying nanobubbles in helium-plasma irradiated tungsten: Density and pressure estimation using TEM-EELS measurements**Speaker**

Dr Ayoub BENMOUMEN

2.018 Modelling of limiter load and its dependence on the wall clearance in Quasi-Continuous Exhaust regime in the ASDEX Upgrade tokamak**Speaker**

Luca Scotti

2.090 CF-LIBS Depth Profile Analysis of Inner Divertor from In-situ JET LIBS Robotic Arm measurements: Impact of Spectral Averaging on Depth Resolution and Quantification**Speaker**

Pavel Veis

2.026 Growth and coalescence of He bubbles in W**Speaker**

Hozane Blanche NGONGANG ELOKO

2.113 Controlled Exposure of High-Temperature Ceramics in the Scrape-Off Layer of WEST**Speaker**

Bianca De Martino

2.099 Cyclical loading of different tungsten grades under COMPASS-U divertor conditions in Magnum-PSI**Speaker**

Thomas Morgan

2.017 EMC3-Eirene simulations of first wall heat and particle loads in ITER Start of Research Operation scenarios**Speaker**

Jonathan Van Blaricum

2.100 Molecular Dynamics Simulation of One-Dimensional Migration of $1/2\langle 111 \rangle$ Dislocation Loops in Tungsten**Speaker**

Zhaofan Wang

2.023 Temperature threshold reduction of W fuzz formation affected by surface pre-treatment**Speaker**

Quan Shi

2.034 Machine Learning for Hydrogen Recycling Modeling**Speaker**

Seiki Saito

2.097 Qualification of Grain Oriented, Additively Manufactured Tungsten as a Plasma Facing Material**Speaker**

Aaliyah Zuniga

2.037 Self-consistent integrated modeling of processes taking place during plasma material interactions in Tokamaks**Speaker**

Tatyana Sizyuk

2.112 INVESTIGATING THE INFLUENCE OF DOPING AND ADDITIVE MANUFACTURING TECHNIQUES ON THE PLASMA MATERIAL INTERACTION RESPONSE OF TUNGSTEN**Speaker**

Simon Corah

2.047 Erosion behaviour of compact and porous boron layers exposed to deuterium plasma in the GyM linear device**Speaker**

Andrea Uccello

2.096 Results from the Hydrogen Absorption and Desorption Experiment in a Stellarator (HADES) Campaign in HIDRA

Speaker
Nina Mihajlov

2.094 Wide-area spectroscopic observation and machine learning analysis of attached and detached helium plasmas

Speaker
Hirohiko Tanaka

2.068 Analysis of the secondary strike line in Wendelstein 7-X's higher plasma beta scenarios

Speaker
Sebastian Draeger

2.060 Characterization of boron layers on tungsten substrates by picosecond laser-induced breakdown spectroscopy

Speaker
Huace Wu

2.043 In-situ measurements of boron erosion and redeposition in deuterium plasma in the linear plasma device PSI-2

Speaker
Arkadi Kreter

2.109 Recrystallization Kinetics of Tungsten Under Fusion-Related Conditions: Possible Pathways to Enhanced Microstructure Stability

Speaker
Chao Yin

2.088 BH molecular emission in the divertor region of LHD: dependence on magnetic axis, plasma parameters, and multi-view spectroscopy

Speaker
Arseniy Kuzmin

2.052 ERO2.0 simulations of physical and chemical erosion of boron nitride-boron pebble targets in PISCES-A

Speaker
Juri Romazanov

2.117 Surface Morphology and Composition Changes of Additive Manufactured W Components Exposed to Liquid Li or Stellarator Plasma

Speaker
Kenta Kawashimo

2.116 DTT divertor Qualification activities: assessment of W/Cu Joining Technologies for Flat Tile end of the Central Target

Speaker
Selanna Roccella

2.080 Coupled turbulence and transport simulations of multiple ELM cycles within Edge Plasma Coupling Simulation framework

Speaker
Shifeng Mao