

PSI27 – Regensburg

Poster Sessions

Monday, May 18 2026 – Poster Session 1

- Loic Corso** **Forum 9**
1.014 Helium bubbles migration characterized by in-operando GISAXS and in-situ TEM
- Robert Kolasinski** **Forum 9**
1.016 Exposure of advanced tungsten materials and ultra-high temperature ceramics to divertor plasmas in DIII-D: Analysis of erosion, surface morphology changes, recrystallization, and surface cracking
- Michael Simmonds** **Forum 9**
1.017 Thermal and elastic property evolution of displacement damaged tungsten at fusion-relevant annealing temperatures
- Benjamin Burazor Domazet** **Forum 9**
1.019 Angular distributions of sputtered particles: influence of surface topography and texture
- Youpeng Wang** **Forum 9**
1.020 First mirror cleaning and impedance characterization for the ITER Core Plasma Thomson Scattering diagnostic
- V Kotov** **Forum 9**
1.021 Application of the linear plasma device PSI-2 as benchmark of hydrogen plasma chemistry
- Yukinori Hamaji** **Forum 9**
1.023 an experimental study of interaction between plasma and flowing Sn free-surface
- Daniel Primetzhofer** **Forum 9**
1.118 The impact of boron on tungsten plasma facing walls: sputter yields, near-surface morphology, and fuel retention
- Davis Easley** **Forum 9**
1.119 Development and validation of an integrated SOLPS-EPED model in MAST-U
- Matej Mayer** **Forum 8**
1.024 Transport of light impurities in Wendelstein 7-X
- Jeremy Mateja** **Forum 8**
1.026 Testing low-Z PFC slag removal with strike point sweeping on DIII-D tokamak
- Raphael Gurschl** **Forum 8**
1.027 Sputtering behavior of tungsten-boron mixed layers
- Ionut Jecu** **Forum 8**
1.028 Overview of runaway electron (RE) interaction with the beryllium inner limiters in JET

- Marc Sackers** **Forum 8**
1.029 Physical and chemical erosion of thin boron and amorphous boron-hydride films investigated at the linear plasma device PSI-2
- Noriyasu Ohno** **Forum 8**
1.030 Sputtering Behavior of He–W Co-Deposited Layers: Experiments and Modeling
- Mykola Ialovega** **Forum 8**
1.031 Impact of energetic fusion products on the first wall of a GenF's ICF reactor
- Samuli Saari** **Forum 8**
1.032 Experimental analysis of Pt marker erosion in the outer divertor region of ASDEX Upgrade during L- and H-mode discharges
- Gabriele Alberti** **Forum 8**
1.033 Modelling divertor erosion and tungsten core contamination in DTT negative triangularity scenario
- Fan Feng** **Forum 8**
1.034 Surface morphology damage of rolled W-K plates under different high heat load
- Clément Monet-Vidonne** **Forum 8**
1.035 Thermophysical characterization of surface deposits from the first high fluence campaign of WEST
- Chandra Prakash Dhard** **Forum 8**
1.039 Tungsten erosion and injection investigations in the stellarator Wendelstein 7-X: Results from OP2.1-2.3
- D. L. Rudakov** **Forum 8**
1.040 Divertor Material Evaluation System (DiMES) at the DIII-D tokamak: 30 years of PMI research
- Andreas Kirschner** **Forum 8**
1.041 Modelling of tungsten prompt redeposition at the inner wall of ITER during ramp-up
- Christoph Kawan** **Kleines Forum**
1.042 Quantified depth profiling of deeply located deuterium with ps-laser-induced ablation quadrupole mass spectrometry
- Andreas Theodorou** **Kleines Forum**
1.043 Thermal desorption and retention of deuterium in helium-implanted and displacement-damaged EUROFER97 at reactor-relevant temperatures
- Anurag Maan** **Kleines Forum**
1.044 Beam fueling low recycling discharges with modest lithium impurity fraction in LTX-beta
- Rongxing yi** **Kleines Forum**
1.045 Doppler Shift of Hydrogen Balmer-alpha in picosecond Laser Induced Breakdown Spectroscopy on W substrates: The Art of Timing and Wavelength Tuning

- Alexander Feichtmayer** **Kleines Forum**
1.046 Investigating the Soret Effect of Deuterium in Metals – A Novel Approach Using Ion Beam Analysis
- Laurent COLAS** **Kleines Forum**
1.048 The plasma content in hydrogen and its control on the full-metal tokamak WEST, from restart phases to long pulses.
- Maria Popova** **Kleines Forum**
1.051 Near-surface hydrogen inventory response to picosecond laser pulses in tungsten.
- Tom Wauters** **Kleines Forum**
1.053 Parametric Study of Plasma-Driven Permeation in the Diagnostic First Wall of ITER
- Tomi Vuoriheimo** **Kleines Forum**
1.057 Effect of boron coatings on hydrogen isotope exchange effect in tungsten
- Anne Houben** **Kleines Forum**
1.058 Boronization in ITER: Study of the hydrogen isotope interaction and isotope exchange in B:D layers
- Ralph Dux** **Kleines Forum**
1.059 Spectroscopic characterisation of boronisation glow discharges in ASDEX Upgrade
- Fotios Maragkos** **Kleines Forum**
1.061 Boronization and erosion rates of samples exposed in the W7-X stellarator
- Sebastijan Brezinsek** **Kleines Forum**
1.062 Investigation of boron distribution on multiple anodes applied in W7-X using ex-situ picosecond laser-induced breakdown spectroscopy
- Alessandro Bortolon** **Kleines Forum**
1.063 A heuristic model for the effects of real-time and glow discharge boronization
- Frederik Henke** **Kleines Forum**
1.065 Experimental investigations of impurity enrichment in the divertor of Wendelstein 7-X
- Curtis Johnson** **Kleines Forum**
1.067 Prompt Redeposition of Divertor and ICRH-Sourced Tungsten in WEST Measured with Ultraviolet W I/W II Spectroscopy
- Alex GROSJEAN** **Kleines Forum**
1.069 Impact of plasma shape on impurity sources and resulting W core contamination in KSTAR and WEST.
- Tyler Abrams** **Kleines Forum**
1.072 Advancing Fusion Pilot Plant Readiness through the Tungsten Wall Transition on DIII-D
- Volodymyr Bobkov** **Kleines Forum**
1.074 Linking simulated ICRF sheath-rectified potentials to measurements in ASDEX Upgrade and JET

- Nicolas RIVALS** **Kleines Forum**
1.076 Operational space exploration of the X-Point Radiator scenario in WEST
- Valeria Perseo** **Kleines Forum**
1.078 Increased power and performance at Wendelstein 7-X: effect on the scrape-off layer transport and first attempts of combined core/edge scenarios
- Jae-Sun Park** **Kleines Forum**
1.079 Physics of the decay length broadening and asymmetry: Insights from SOLPS modelling
- Adriano Stagni** **Kleines Forum**
1.080 Detachment of type-I ELMy H-mode TCV plasmas via nitrogen seeding and correlations with scrape-off layer properties
- Andreas Holm** **Kleines Forum**
1.082 Passive detachment front stabilization in baffled divertors using upstream pumping
- Yanjie Zhang** **Kleines Forum**
1.084 Effects of triangularity on power asymmetry and detachment in TCV double-null plasmas using SOLPS-ITER with drifts
- Marco Cavedon** **Kleines Forum**
1.085 Divertor Turbulence Control via Leg Geometry: Experimental Tests on TCV tokamak
- Tilmann Lunt** **Kleines Forum**
1.087 3D detachment in the new upper divertor of ASDEX Upgrade induced by a local gas-puff
- Patrick Tamain** **Kleines Forum**
1.088 Evaluation of light impurity turbulent transport in the edge plasma from 3D multi-fluid turbulence simulations
- Michele Lambresa** **Kleines Forum**
1.089 Impact of the toroidal field direction on SOLEDGE3X 3D turbulent simulations of the COMPASS boundary plasma
- Dieter Boeyaert** **Kleines Forum**
1.090 Analysis of non-resonant divertor experiments in W7-X
- Carsten Killer** **Kleines Forum**
1.092 Perpendicular transport by turbulence and drifts in the W7-X island divertor
- Vesa-Pekka Rikala** **Kleines Forum**
1.093 EDGE2D-EIRENE and EIRENE interpretation of Balmer and Fulcher band emission in JET-ILW Ohmic deuterium plasmas
- Sebastian Hörmann** **Kleines Forum**
1.094 Fast processes in the divertors of Wendelstein 7-X and ASDEX Upgrade

- Erin Joy Tinacba** **Kleines Forum**
 1.097 Classifying ST40 plasmas through SepOS framework
- Sergio Garcia Herreros** **Kleines Forum**
 1.098 Study of alternative divertor configurations with first-principles, self-consistent, global turbulence simulations
- Andrei Pshenov** **Forum 7**
 1.100 ITER Q = 10 divertor operational window with realistic plasma-facing component geometry
- Ulrich Stroth** **Forum 7**
 1.103 On the influence of impurity species and X-point geometry on accessibility and dissipation capacity of X-point radiators in fusion reactors
- Andrei Khodak** **Forum 7**
 1.104 Diffusion Pump Divertor for Fusion Devices
- Vsevolod Soukhanovskii** **Forum 7**
 1.105 SNOWFLAKE DIVERTOR STUDIES IN MAST-U TOKAMAK AND OUTLOOK FOR NSTX-U
- Yu Gao** **Forum 7**
 1.108 Empirical scaling of divertor heat loads in Wendelstein 7-X
- Anastasia Poletaeva** **Forum 7**
 1.109 Dynamic SOLPS-ITER modelling of the X-point radiator regime in ITER
- Michael Faitsch** **Forum 7**
 1.110 The exhaust capability of the quasi-continuous exhaust regime
- Nicola Lonigro** **Forum 7**
 1.111 Investigating the role of baffling, fuelling location, and total flux expansion on detachment front location sensitivity in MAST-U discharges
- Auna Moser** **Forum 7**
 1.112 Heat flux expansion in high heat flux experiments on DIII-D
- David Rees** **Forum 7**
 1.113 Detachment in JET-ILW L-mode deuterium and helium plasmas: Experimental and SOLPS-ITER comparison
- Sarah Elmore** **Forum 7**
 1.114 Effect of divertor geometry on neutral compression, SOL width and broadening in MAST Upgrade
- Ivan Paradela Perez** **Forum 7**
 1.115 Effect of Drift Driven Fluxes, Magnetic Geometry Bias, and Operational Actuators on Upper/Lower Asymmetries in MAST-U
- Hang Si** **Forum 7**
 1.117 Effect of strike point position on the divertor heat load for Japanese DEMO

Gabrielle Koknat

Forum 7

Non-Equilibrium Ion Dynamics in Tungsten: A Machine Learning Approach to Radiation Damage

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Poster Sessions

Tuesday, May 19 2026 – Poster Session 2

- Quan Shi** **Forum 7**
2.023 Temperature threshold reduction of W fuzz formation affected by surface pre-treatment
- SOOHYUN SON** **Forum 7**
2.024 Characteristics of boron layers deposited during boronization and boron powder injection in KSTAR
- Vadym Makhlai** **Forum 7**
2.025 SURFACE DAMAGE OF ITER-GRADE TUNGSTEN UNDER SEQUENTIAL IRRADIATION WITH HELIUM ION BEAM AND HIGH HEAT FLUXES OF QSPA HYDROGEN PLASMA
- Hozane Blanche NGONGANG ELOKO** **Forum 7**
2.026 Growth and coalescence of He bubbles in W
- John Caughman** **Forum 7**
2.027 The effect of the radio frequency sheath on the sputtering of plasma facing materials
- Jake Nichols** **Forum 7**
2.028 3D modeling of target-plasma interactions at oblique angles of incidence in MPEX-like linear plasma devices
- Athanasios Bamidis** **Forum 7**
2.030 Fundamental quantities in ion-solid interaction at fusion relevant energies - interatomic potentials of Cr assessed using low-energy ions
- Lorenzo Boccaccia** **Forum 7**
2.033 Survivability of boron dust and powder in edge fusion plasmas
- Seiki Saito** **Forum 7**
2.034 Machine Learning for Hydrogen Recycling Modeling
- Tommaso Rizzi** **Forum 7**
2.036 β -decay induced self-charging of tritiated tungsten dust in fusion reactors
- Tatyana Sizyuk** **Forum 7**
2.037 Self-consistent integrated modeling of processes taking place during plasma material interactions in Tokamaks
- Martin Balden** **Forum 7**
2.039 Net erosion of molybdenum coated ICRH limiter tiles in ASDEX-Upgrade
- Pry Virtanen** **Forum 7**
2.041 Limiter phase nickel migration in the JET ITER-Like wall

- Marco De Angeli** **Forum 7**
2.042 Thermal transition of W-on-W adhesion from van der Waals interactions to metallic bonding
- Arkadi Kreter** **Forum 7**
2.043 In-situ measurements of boron erosion and redeposition in deuterium plasma in the linear plasma device PSI-2
- Daniel Gautam** **Forum 7**
2.044 In-situ investigation of oxygen trapping in tungsten, boron and mixed thin-films during thermal annealing using ion beams
- Daniel Gautam** **Forum 7**
2.045 Neon retention in tungsten, boron and mixed thin-films under the effects of thermal annealing studied by isotopic tracing
- Antti Hakola** **Forum 7**
2.046 Reference boron layers for investigating the formation and characteristics of boron-based co-deposits in tokamaks
- Andrea Uccello** **Forum 7**
2.047 Erosion behaviour of compact and porous boron layers exposed to deuterium plasma in the GyM linear device
- Sean Kosslow** **Forum 7**
2.048 Experimental evidence of the loss of boronization effectiveness by plasma redeposition in WEST
- Prashant Dwivedi** **Forum 7**
2.051 Helium Topology Controlled Erosion of Tungsten Under High velocity Dust Impacts: Molecular Dynamics Insights
- Juri Romanzanov** **Forum 7**
2.052 ERO2.0 simulations of physical and chemical erosion of boron nitride-boron pebble targets in PISCES-A
- Jort van Kesteren** **Forum 7**
2.054 Chemical Erosion and Deuterium Retention of Boron Thin Films using in-situ Ion Beam Analysis in Upgraded Pilot-PSI
- Sangeetha Sasidharan** **Forum 7**
2.118 Recent analysis of tungsten dust in ASDEX Upgrade
- Gakushi Kawamura** **Forum 9**
2.055 First-in-kind plasma transport modeling of EC wall-conditioning of JT-60SA with EMC3-EIRENE code
- Céline MARTIN** **Forum 9**
2.056 Chemical and physical properties of boron layers produced during non-uniform glow discharge boronization in the WEST tokamak

- Joseph Snipes** **Forum 9**
2.057 Analysis of Solid Boron Injection for ITER
- Sanah Hussain** **Forum 9**
2.058 Influence of boron-containing films on optical and emissive properties of tungsten
- Huace Wu** **Forum 9**
2.060 Characterization of boron layers on tungsten substrates by picosecond laser-induced breakdown spectroscopy
- Hiroaki Nakamura** **Forum 9**
2.061 Molecular Dynamics Investigation of Carbon-Based Hydrogen Recycling Control in Plasma-Facing Walls
- Braden Moore** **Forum 9**
2.063 Deuterium Implantation and Thermal Extraction in the Actively Pumped Open-Surface Lithium LOP (APOLLO)
- Henri Kuivasniemi** **Kleines Forum**
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
- Victoria Winters** **Kleines Forum**
2.065 EMC3-Eirene simulation of neutral source effects on density build-up in the W7-X island divertor
- Mathias Groth** **Kleines Forum**
2.066 Impact of Lyman opacity on divertor plasma and neutral conditions in DIII-D
- Linnéa Björk** **Kleines Forum**
2.067 Development of multi-diagnostic Bayesian analysis tool for inference of plasma parameters in the W7-X island divertor
- Sebastian Draeger** **Kleines Forum**
2.068 Analysis of the secondary strike line in Wendelstein 7-X's higher plasma beta scenarios
- Hugo Corvoysier** **Kleines Forum**
2.069 Investigating the main dependencies in heat-flux decay length scalings using first-principles turbulence codes
- Joey Louwe** **Kleines Forum**
2.070 Predicting MANTIS performance in W7-X: Synthetic Modeling of the Expected Operational Regime Using EMC3-EIRENE
- Heinke Frerichs** **Kleines Forum**
2.071 Recent improvements in EMC3-EIRENE modeling for divertor detachment in burning plasmas
- Hiroyuki Takahashi** **Kleines Forum**
2.072 Collisional-radiative analysis of atomic and molecular hydrogen emissions for electron density and electron temperature diagnostics

- Kevin Andrea Siever** **Kleines Forum**
2.075 Comparison of experimental impurity radiation dynamics in the scrape-off layer of W7-X with EMC3-EIRENE simulations.
- Chanyeong Lee** **Kleines Forum**
2.076 Surrogate boundary model development for KSTAR tungsten divertor operation based on SOLPS-ITER simulations
- Roland Friedl** **Kleines Forum**
2.077 Intensity-calibrated VUV spectroscopy at UPP in attached and detached hydrogen and deuterium plasmas
- Kaushlender Singh** **Kleines Forum**
2.078 Quantification of SOL filamentary transport and parametric dependencies across different regimes in TCV.
- Sean Ballinger** **Kleines Forum**
2.079 Reconstructing the separatrix density in SPARC for pulse planning and control
- Daniil Ryndyk** **Kleines Forum**
2.081 EMC3-EIRENE predictions of radiative detachment scenarios in W7-X equipped with a tungsten based divertor
- Shogo Otsuka** **Kleines Forum**
2.082 Impact of radiation trapping effect with spatial distribution on He I line intensity ratio method in the study on detached divertor plasma
- Paolo Innocente** **Kleines Forum**
2.083 Edge modelling of low and high radiative partially detached JET high power plasmas in the ITER-like configuration
- Shweta Soni** **Kleines Forum**
2.093 Investigation of Deuterium Retention in Fe–Zr/Y Multilayers Using Femtosecond Laser-Induced Mass Spectrometry
- Shigetaka Kagaya** **Kleines Forum**
2.119 Development of Retarding Field Analyzer for Spatial Distribution Measurements of Ion and Electron Temperature in Recombining Plasma
- Jonathan Van Blarcum** **Forum 8**
2.017 EMC3-Eirene simulations of first wall heat and particle loads in ITER Start of Research Operation scenarios
- Luca Scotti** **Forum 8**
2.018 Modelling of limiter load and its dependence on the wall clearance in Quasi-Continuous Exhaust regime in the ASDEX Upgrade tokamak
- Ayoub BENMOUMEN** **Forum 8**
2.019 Quantifying nanobubbles in helium-plasma irradiated tungsten: Density and pressure estimation using TEM-EELS measurements

- Zeke Unterberg** **Forum 8**
2.021 Design Considerations for Main Wall Plasma-facing Components in Magnetic-confinement Fusion Devices
- Audun Theodorsen** **Forum 8**
2.022 Two-point model with filamentary transport
- Mark Cornelissen** **Forum 8**
2.085 Multi-spectral coherence imaging to characterize the scrape-off layer flows in TCV and Magnum-PSI
- Tomás Sousa** **Forum 8**
2.086 Influence of 3 T magnetic field on RF plasma self-bias and erosion pattern for the ITER Wide Angle Viewing System
- Laura Dittrich** **Forum 8**
2.087 Spectral ellipsometry for in-vessel deposition measurements on plasma-facing components in Wendelstein 7-X
- Arseniy Kuzmin** **Forum 8**
2.088 BH molecular emission in the divertor region of LHD: dependence on magnetic axis, plasma parameters, and multi-view spectroscopy
- Keisuke Fujii** **Forum 8**
2.089 Poloidal flow measurement of impurity ions in DIII-D divertor
- Pavel Veis** **Forum 8**
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
- Shin Kajita** **Forum 8**
2.091 Fine-Tuning of Machine Learning Diagnostics of Electron Density and Temperature from Helium Line Emissions
- Hirohiko Tanaka** **Forum 8**
2.094 Wide-area spectroscopic observation and machine learning analysis of attached and detached helium plasmas
- Georg Schlisio** **Forum 8**
2.095 Progress in high time and mass resolution mass spectrometry in Wendelstein 7-X
- Nina Mihajlov** **Kleines Forum**
2.096 Results from the Hydrogen Absorption and Desorption Experiment in a Stellarator (HADES) Campaign in HIDRA
- Aaliyah Zuniga** **Kleines Forum**
2.097 Qualification of Grain Oriented, Additively Manufactured Tungsten as a Plasma Facing Material
- Thomas Morgan** **Kleines Forum**
2.099 Cyclical loading of different tungsten grades under COMPASS-U divertor conditions in Magnum-PSI

- Zhaofan Wang** **Kleines Forum**
2.100 Molecular Dynamics Simulation of One-Dimensional Migration of $1/2\langle 111 \rangle$ Dislocation Loops in Tungsten
- laura Laguardia** **Kleines Forum**
2.101 Qualification of tungsten as plasma-facing components for COMPASS-U: Effects of laser and plasma damage on microstructure and deuterium retention
- Andrea Mastrogirolamo** **Kleines Forum**
2.102 Integrated SOLPS-ITER and ERO2.0 modelling of helium–tungsten plasma–surface interaction for an H-mode ASDEX Upgrade discharge
- Haoxuan Yu** **Kleines Forum**
2.103 Evidence of Helium Retention by Lithium Interaction in EAST
- MARIA MORBEY** **Kleines Forum**
2.104 Dynamics of hydrogen isotope exchange in co-deposited LiD layers using operando ion beam
- Rahul Rayaprolu** **Kleines Forum**
2.105 Characterisation of steady state plasma at the linear plasma device – JULE PSI
- Gregory Sinclair** **Kleines Forum**
2.106 Centralized database on integrated testing of advanced materials in the DIII-D tokamak
- Udo von Toussaint** **Kleines Forum**
2.107 Improved modelling and sampling of particles reflected from non-planar surfaces
- Masayuki Tokitani** **Kleines Forum**
2.108 Development of combined joint method for W/RAFM steel with copper intermediate layer
- Chao Yin** **Kleines Forum**
2.109 Recrystallization Kinetics of Tungsten Under Fusion-Related Conditions: Possible Pathways to Enhanced Microstructure Stability
- Hanns Gietl** **Kleines Forum**
2.110 Microstructural and mechanical property characterization of tungsten fiber-reinforced copper alloys
- Alessio Villa** **Kleines Forum**
2.111 A Systematic Analysis of Runaway Electron Energy Deposition in Plasma-Facing Components
- Simon Corah** **Kleines Forum**
2.112 INVESTIGATING THE INFLUENCE OF DOPING AND ADDITIVE MANUFACTURING TECHNIQUES ON THE PLASMA MATERIAL INTERACTION RESPONSE OF TUNGSTEN
- Bianca De Martino** **Kleines Forum**
2.113 Controlled Exposure of High-Temperature Ceramics in the Scrape-Off Layer of WEST

Emna Frikha

Kleines Forum

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

Selanna Roccella

Kleines Forum

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

Kenta Kawashimo

Kleines Forum

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

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Poster Sessions

Thursday, May 21 2026 – Poster Session 3

- Žana Popović** **Forum 9**
3.025 High heat flux exposure of advanced tungsten composites and chromium in the DIII-D divertor under Fusion Pilot Plant-relevant conditions
- Yevhen Zayachuk** **Forum 9**
3.027 Microscopy study of plasma- and laser-induced effects in tungsten components exposed to helium and hydrogenic plasmas in JET
- Ladislav Vignitchouk** **Forum 9**
3.029 Simulations of tungsten gap bridging under ITER-like disruption conditions
- Shaun Haskey** **Forum 9**
3.030 Experimentally constrained modeling of the energy spectrum and impact angle distribution of wall impacting neutrals and their role in main-chamber erosion
- Estelle ROMULUS** **Forum 9**
3.031 FIRST SPECTRUM OF TUNGSTEN' EMISSIVITY AFTER EXPOSITION IN THE WEST TOKAMAK
- Hugo Bufferand** **Forum 9**
3.033 Investigation of Lithium sources and transport with flowing liquid metal plasma facing components
- Corneliu Porosnicu** **Forum 9**
3.034 Boron–Tungsten Coatings for Fusion-Relevant Studies: Plasma Parameters versus Film Properties
- Francesco Cani** **Forum 9**
3.035 Interpretative and predictive analysis of impurity migration in GyM and BiGyM through ERO2.0 Monte Carlo transport code
- Cas Robben** **Forum 9**
3.118 Plasma-Assisted Growth and Stability of Thick Boron Layers on Tungsten Under Fusion-Relevant Conditions
- Steven Thériault** **Kleines Forum**
3.039 Deuterium Retention in Tungsten After Deuterium-Nitrogen Co-bombardment
- Olga Ogorodnikova** **Kleines Forum**
3.040 Deuterium retention in radiation- and plasma- induced defects and co-deposited layers in W and W-Cr-Y alloy
- Dazheng Li** **Kleines Forum**
3.042 Scaling Laws and Application of a Neutral Gas Evaporation Shielding (NGES) Model in HL-2A Pellet Injection Experiments

- Joey Demiane** **Kleines Forum**
3.043 Dynamics of Deuterium Retention in Boron Thin Films on Tungsten During High-Flux Plasma Exposures in DIONISOS
- Kentaro Masuta** **Kleines Forum**
3.044 Plasma-Driven Hydrogen Permeation Properties of Tungsten Deposited Films Fabricated by Argon Plasma
- Minyou Ye** **Kleines Forum**
3.045 Damage induced by low-energy plasma and MeV ions and its effect on deuterium permeation and retention in tungsten-based materials
- Zhe Liu** **Kleines Forum**
3.046 The effect of high-energy proton irradiation on deuterium permeation and retention in tungsten-based materials
- Sabina Markelj** **Kleines Forum**
3.047 The effect of surface-near helium on deuterium retention in tungsten and EUROFER
- Jonathan DUFOUR** **Kleines Forum**
3.048 Modelling of Hydrogen Isotopes Exchange in Self-Damaged Tungsten
- Thomas Schwarz-Selinger** **Kleines Forum**
3.049 Irradiation damaging of EUROFER97 to very large damage doses: lattice strain and deuterium retention
- Sergei Krasheninnikov** **Kleines Forum**
3.050 Mesoscale structures and anomalous transport driven by the RDW turbulence
- Jae-in Song** **Kleines Forum**
3.052 Divertor Fuel Injection System for Detachment Experiments in KSTAR
- June-Woo Juhn** **Kleines Forum**
3.053 Density Limits on the KSTAR Plasmas
- Sebastian Rode** **Kleines Forum**
3.054 Retention modelling for stellarator reactor design based on W7-X
- zeshi gao** **Kleines Forum**
3.055 Hydrogen isotope permeation and retention in pure and dispersion-strengthened tungsten: from pristine microstructures to helium-induced fuzz surfaces
- Bianca Solomonea** **Kleines Forum**
3.056 Theoretical modeling of hydrogen transport in boron structures
- Yuri IGITKHANOV** **Kleines Forum**
3.058 Plasma Fueling and Particle Exhaust Control in a fusion power reactor
- Suguru Masuzaki** **Forum 8**
3.062 Impact of impurity powder injection on the first wall material transport in LHD

- Raymond Diab** **Forum 8**
 3.063 Experimental and Numerical Characterization of ICRF-Induced Plasma-Wall Interaction in the Regime of Propagative Slow Waves
- Riccardo Ian Morgan** **Forum 8**
 3.064 Influence of impurity injection location on tokamak plasma performance
- Naren Varadarajan** **Forum 8**
 3.065 Integrated Core-Edge Modelling of Tungsten Using SOLEDGE-3X and Application to WEST Experiment
- Alexis Huart** **Forum 8**
 3.066 Erosion and deposition patterns on ITER-grade actively-cooled divertor in WEST high-fluence campaign: analysis and comparison with SOLEDGE3X and ERO2.0 modeling results
- Timo Dittmar** **Forum 8**
 3.067 A ^{15}N tracer injection experiment to study long range impurity transport in W7-X
- Zhuang Liu** **Forum 8**
 3.068 Investigations of impurities and pellet injection in EAST and HL-3 tokamaks
- Tian Xie** **Forum 8**
 3.070 Influence of nitrogen recycling on toroidally asymmetric heat load on CFETR X-divertor with EMC3-EIRENE modelling
- Juhyeok Jang** **Forum 8**
 3.072 Tungsten Impurity Effects on Effective Charge and Radiation Fraction in KSTAR Plasmas
- Atsushi Okamoto** **Forum 8**
 3.076 Initial experiment of an internal coil device for impurity transport study
- Liang Liu** **Forum 8**
 3.077 INVESTIGATION OF PLASMA-WALL INTERACTION AND IMPURITY TRANSPORT BEHAVIORS OF HL-3 PLASMAS
- Romain Avril** **Forum 8**
 3.119 Lithium impurity transport in fusion devices
- Holger Reimerdes** **Forum 7**
 3.101 Assessing the tightly baffled long-legged divertor (TBLLD) concept in TCV
- Jack Lovell** **Forum 7**
 3.102 Development and exhaust performance of the X divertor on MAST Upgrade
- Stijn Kobussen** **Forum 7**
 3.103 Towards dynamical system identification simulations using multisine perturbations for MAST-U with SOLPS-ITER
- Felix Albrecht** **Forum 7**
 3.104 First L-Mode experiments in Alternative Divertor Configurations in ASDEX Upgrade

- Martim Zurita** **Forum 7**
3.106 Avoidance of large ELMs through impurity seeding
- Sid Leigh** **Forum 7**
3.107 Modelling kinetic electron effects for transient heat-loads in the detached MAST-Upgrade Super-X divertor
- Juuso Karhunen** **Forum 7**
3.108 Introduction of cross-field drifts in SOLPS-ITER simulations of STEP with fully tracked Ar impurities
- Koyo Munechika** **Forum 7**
3.109 3D Synthetic Bolometry and Radiation Asymmetry Analysis for ITER SPI-Mitigated Disruptions
- Fabian Solfronk** **Forum 7**
3.110 Development and validation of an XPR model in the ASDEX Upgrade flight simulator integrated modelling framework
- Andreas Redl** **Forum 7**
3.111 Preparation of Boundary Digital twin for SPARC boundary physics operations
- Anastasios Tsikouras** **Forum 7**
3.112 Control of the radiated power using bolometers and the impact of observed asymmetries on the radiated power proxy in Wendelstein 7-X
- Eva Havlickova** **Forum 7**
3.115 The importance of drifts and radial transport assumptions in 2D modelling of the access to detachment and XPR in WEST
- Amit Kohinoor Kharwandikar** **Forum 7**
3.116 Characterizing SOL Heat Transport in Wendelstein 7-X with SMoLID
- Aaro Järvinen** **Forum 7**
3.117 Revisiting the ITER $Q_{\text{DT}} = 10$ SOLPS-4.3 database with SOLPS-ITER with drifts and currents
- Sven Wiesen** **Kleines Forum**
3.080 Rapid exhaust operational space studies employing AI workflows: the low-aspect ratio EU-DEMO as a use case
- Charles Hirst** **Kleines Forum**
3.081 Evaluation of Additively Manufactured Tungsten and Cold Spray Tantalum Coating Performance through DiMES Plasma Exposures at DIII-D
- Annemarie Kärcher** **Kleines Forum**
3.082 Experimental investigation on the flux-dependence of He clustering in polycrystalline and single-crystalline W
- Kelly Garcia** **Kleines Forum**
3.083 Reactor-Scale Island Divertor Simulations of W7-X-like Configurations

- Weixi Chen** **Kleines Forum**
3.084 Numerical study on surface heat load and erosion for limiter design in JA DEMO
- Marcos Navarro** **Kleines Forum**
3.085 Detachment via Impurity Seeding, Heat Exhaust and Erosion in DIII-D in 3D Fields
- Dylan Kohler** **Kleines Forum**
3.086 Performance Analysis of Additively Manufactured Tungsten through L-mode and H-mode DiMES Plasma Exposures at DIII-D
- Zongxiao Guo** **Kleines Forum**
3.087 A Systematic Study on Detonation-Sprayed Tungsten/Steel First Wall Structures: From Process Development to Performance Evaluation
- Derek Harting** **Kleines Forum**
3.088 Application of the kinetic ion transport model EMC3-EIRENE- KIT for W transport in full-3D wide-grid H-mode scenarios for the ITER SRO and DT-1 phases
- Marlene Patino** **Kleines Forum**
3.090 The impact of concurrent displacement damage on retention for high-flux D2-10%He plasma-exposed tungsten
- Hans Maier** **Kleines Forum**
3.091 Development and High Heat Flux Testing of Cold Sprayed Tungsten-based Coatings for the ITER Temporary First Wall
- Yuta KINASHI** **Kleines Forum**
3.092 Plasma Flow Measurements for Investigating Impurity Transport in the Helicon-Based PMI Device PISCES-RF
- Jeremy Lore** **Kleines Forum**
3.093 Integrated modeling of open-surface liquid metal divertors
- Matthieu Spinosi** **Kleines Forum**
3.094 Optimization of Additive Manufactured Tungsten Lattice Structures for Liquid Metal Infiltration in Plasma-Facing Components
- Nobuyuki Asakura** **Kleines Forum**
3.095 SONIC simulation studies of neutral-neutral collision and extended thermal force, and effects on JA DEMO detached divertor and impurity control
- Daniel Alegre Castro** **Kleines Forum**
3.096 Simulation of disruptions and small-ELMs regimes by a CW laser over different advanced tungsten materials at the OLMAT high heat flux facility
- Marianne Richou** **Kleines Forum**
3.097 Testing of VPS and PVD Tungsten Coatings on Steel in WEST for the ITER Temporary First Wall
- Vlad Soukhanovskii** **Kleines Forum**
3.098 Investigating Divertor and PFC Safety Limits for Planned NSTX-U Experiments Using UEDGE

Erik Wüst

Kleines Forum

3.099 Influence of inter-pulse delay in double-pulse laser-induced breakdown spectroscopy on the detection of implanted deuterium in tungsten

Zori Harutyunyan

Kleines Forum

3.100 Boron-Enhanced W–Ta–V–Cr–Ti High-Entropy Alloys as Advanced Plasma-Facing Materials for Fusion Reactors

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Poster Sessions

Friday, May 22 2026 – Poster Session 4

- Yuchen Xu** **Kleines Forum**
4.009 Simulation study of the influence on pedestal instabilities due to impurities seeded by supersonic molecular beam injection
- Jiafeng He** **Kleines Forum**
4.010 Development of the three-dimensional simulation of scrape-off layer plasma transport code using finite volume method
- Xavier Bonnin** **Kleines Forum**
4.012 SOLPS-ITER as open-source software
- Tsunehiro Morita** **Kleines Forum**
4.014 Feasibility study of the hydrogen recombination front measurement by analyzing the Zeeman effect on the chord-integrated Ar I line spectrum at 912 and 965 nm in JT-60SA
- Satoshi TAKAHASHI** **Kleines Forum**
4.015 Electron density re-increase associated with a recombination-process transition during neutral gas injection in a GAMMA 10/PDX divertor simulated plasma
- Kerry Lawson** **Kleines Forum**
4.016 Impact of the Lyman alpha discrepancy on He EDGE2D-EIRENE simulations
- Nassim Maaziz** **Kleines Forum**
4.017 Describing the island divertor physics via simplified models
- Akira TONEGAWA** **Kleines Forum**
4.018 Effect of magnetic field gradient on detached plasma formation in a linear divertor simulator TPDsheet-ICR
- Vsevolod Soukhanovskii** **Kleines Forum**
4.019 UEDGE simulations with drifts of snowflake divertor experiments at MAST-U
- Wouter Dekeyser** **Kleines Forum**
4.020 Analysis and validation of k-model for anomalous transport with data from the TCV-X23 discharge
- Sander van den Kerkhof** **Kleines Forum**
4.115 Automated divertor target shape optimization using SOLPS-ITER and GOAT
- Naomichi Ezumi** **Kleines Forum**
4.022 Influence of Near-Surface Reactions of Small-Angle V-Shaped Target on Detached Plasma Formation in the GAMMA 10/PDX Divertor Simulation Module
- Tanmay Macwan** **Kleines Forum**

4.024 Filamentary transport in small-ELM regime with conventional and snowflake divertor configurations in MAST-U tokamak

Dirk Wunderlich

Kleines Forum

4.026 Revisited reaction probabilities for atomic and molecular hydrogen for modelling cold divertor plasmas

Jerome Moritz

Kleines Forum

4.027 Sheath-driven redeposition of sputtered and evaporated impurities in Liquid Metal based plasma-facing components

Richard Christian Bergmayr

Kleines Forum

4.028 About the relevance of molecular processes in divertor plasmas: Which processes determine T_{vib} at Magnum-PSI?

Floris Scharmer

Kleines Forum

4.030 Asymmetric island localized profile shifts and their implications for scrape-off layer diagnostic comparability in Wendelstein 7-X

Rick van Schaik

Kleines Forum

4.031 First Integration of SOLPS-NN into JINTRAC for Fast Core-Edge Tokamak Simulations

Yinghan Wang

Kleines Forum

4.032 2D Boundary Fluctuation Characterisation in TCV X-point Radiator Plasmas

Maxim Umansky

Kleines Forum

4.036 Investigation of Machine Learning based neutral transport model in UEDGE

Kota TAKEDA

Kleines Forum

4.037 Observation of the Recombination Front Position and Its Movement in the Linear ECR Plasma Device NUMBER

Kwan Chul Lee

Kleines Forum

4.039 The Importance of Plasma-Neutral Interaction; Er formation, H-mode transition, and Intrinsic Rotation from arc discharge to tokamaks and space plasmas

Sergei Makarov

Kleines Forum

4.044 Improved Density Build-Up in Stellarator Island Divertors

Abdourahmane Diaw

Kleines Forum

4.045 Inline Deep Surrogates for Accelerating SOLPS-ITER Simulations

George Wilkie

Kleines Forum

4.046 Neutral transport surrogate model development for coupling to plasma simulation

Robert James Davies

Kleines Forum

4.047 Optimising the island divertor for a stellarator power plant: resilience of magnetic structures and coil optimisation

Eunnam Bang

Kleines Forum

4.048 Upgrade of voltage sweeping system for Langmuir probe to measure n_e , T_e profile in the tungsten divertor region on KSTAR

- Kay Schutjes** **Kleines Forum**
4.049 Investigating the Sensitivity of CARS Diagnostics for Measuring Rovibrational Populations of Hydrogen in Divertor-relevant Plasmas
- Annika Lisa Stier** **Kleines Forum**
4.050 Assessment of the fluid transport model for neutral atoms in Hermes-3 in non-axisymmetric geometries
- David Coster** **Kleines Forum**
4.051 Implementation of core-edge coupling using ETS-PAF and SOLPS-ITER
- Elias Waagaard** **Kleines Forum**
4.052 Towards Divertor and Heat Exhaust Modelling for Quasi-Isodynamic Stellarators with JOREK
- David Bold** **Kleines Forum**
4.053 Global Fluid Simulations in the W7-X Divertor: Development and Initial Benchmarking
- Jonathan Roeltgen** **Kleines Forum**
4.054 Coupling of the neutral code Eirene and the gyrokinetic code GENE-X.
- Hoiyun Jeong** **Kleines Forum**
4.055 Experimental Determination of Diffusion Coefficients near a Magnetic X-Point in a Partially Ionized, Partially Magnetized Plasma
- Bridget McGibbon** **Kleines Forum**
4.056 Progress in edge turbulence modelling with self-consistent neutrals in SOLEDGE3X
- Kateřina Hromasová** **Forum 7**
4.057 Predictive SOLPS-ITER simulations of tokamak COMPASS Upgrade: progress from structured grids to Wide Grids
- Jack Flanagan** **Forum 7**
4.058 Buffering of transients via fuelling and impurity seeding in a detached MAST-U Super-X divertor
- Fabio Federici** **Forum 7**
4.059 Impact of inner leg total flux compression on divertor detachment in MAST-Upgrade
- Joseph Bryant** **Forum 7**
4.060 Preliminary X-Point Radiator Experiments on ST40
- Giulio Rubino** **Forum 7**
4.061 Assessment of the H-mode DTT Scenario A in partially detached divertor conditions
- Reina Miyauchi** **Forum 7**
4.062 Development of a Large-Diameter High-Density Hydrogen Plasma Source and Initial Heat-Flux Measurements in Pilot GAMMA PDX-SC
- Ryuichi Sano** **Forum 7**
4.063 Response of JT-60SA radiation profile to gas injection toward radiation feedback control by transient analysis using integrated divertor code SONIC

J. L. Baker	Forum 7
4.064 The effect of fluid neutral momentum on 1D detachment burn-through for STEP	
Haosheng Wu	Forum 7
4.065 SOLPS-ITER simulations for SPARC advanced divertor configurations	
Eric Emdee	Forum 7
4.067 Lithium Vapor Cave Performance Uncertainty Due to SOL Cross-Field Transport and Deuterium Recycling Variations	
Matthias Bernert	Forum 7
4.068 The X-Point radiating regime at JET with mixed impurities	
Kenneth Lee	Forum 7
4.069 Detachment of high power discharges in TCV X-point target divertor	
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4.070 SOLEDGE3X Predictions for Initial Lithium Vapor Cave Divertor Experiments on NSTX-U	
Francesca Zarotti	Forum 7
4.071 Optimization of the DTT Inner Limiter Through PFCflux Heat Load Simulations	
Máté Szűcs	Forum 7
4.073 Validation of nitrogen-seeded XPR simulations and comparison with other impurities on ASDEX Upgrade using JOREK	
Yu-Chih Liang	Forum 7
4.074 JOREK simulations on the X-point radiator formation and its movement in ASDEX Upgrade	
Morgan Shafer	Forum 7
4.075 Radiation Dependence on Divertor Leg Length in Detachment on DIII-D	
Matteo Maria Robaldo	Forum 7
4.076 Heat load assessment on European low-aspect ratio DEMO (DEMO-LAR) first wall	
Mate Karacsonyi	Forum 7
4.077 Reduced boundary models for the ITER Pulse Design Simulator	
Stefan Dasbach	Forum 7
4.078 Neural Network Prediction of Scrape-Off Layer and Divertor Physics for SPARC	
Dominik Brida	Forum 7
4.080 Characterizing Attached Alternative Divertor Configurations in Deuterium and Hydrogen on ASDEX Upgrade	
Rebecca Masline	Forum 7
4.081 Influence of target chamber geometry on impurity dynamics and neutral pressure in ARC-class divertor legs	

- Kevin Verhaegh** **Forum 7**
4.082 Divertor shaping as a continuum strategy for tackling power exhaust
- Menglong Zhao** **Forum 7**
4.084 Neutral Transport in the Vacuum Region and Its Impact on Detachment Physics
- Hailong Du** **Forum 7**
4.086 Simulation study of SF- divertor particle dispersion and detachment in HL-3 by SOLPS-ITER
- Daniël Maris** **Forum 7**
4.089 JOEAK transient detachment simulations with kinetic neutral collisions: initial results for ASDEX Upgrade
- Tom Looby** **Forum 7**
4.090 Summary of Boundary Physics Work at CFS in Support of SPARC Operations
- Christian Avanzato** **Forum 7**
4.091 Assessment of power exhaust capabilities on the academic tokamak TRUST with the SOLPS-ITER code package
- Ivo Classen** **Forum 8**
4.092 TALIF on Magnum-PSI to characterize ground state atomic hydrogen in detached conditions
- Laurent Marot** **Forum 8**
4.093 Removal of Boron Mixed Contaminant Films on Platinum Mirror
- Gennady Sergienko** **Forum 8**
4.094 Calibration of LIBS diagnostics operated on remote handling arm in JET
- Jun Ren** **Forum 8**
4.095 Direct measurement of heat flux deposition on the first wall from neutral beam shine-through in DIII-D tokamak
- Jari Likonen** **Forum 8**
4.096 Ex-situ analysis of JET plasma-facing components using laser induced breakdown spectroscopy in support of post-DTE3 in-situ measurements
- K. E. Ramachandran** **Forum 8**
4.097 Depth-Resolved ps-LIBS Characterization of Boron/Deuterium and Deuterium- Loaded Boron Coatings for Fusion Plasma-Facing Applications
- Adam McLean** **Forum 8**
4.098 The case for multiband infrared imaging in fusion devices
- Alex Klasing** **Forum 8**
4.099 A versatile Langmuir probe for measuring the edge structure of HSX
- Peeter Paris** **Forum 8**

4.103 In-situ LIBS measurements of fuel retention and deposit formation on inner wall guard limiter tiles by JET LIBS remote handling arm system

Christine Stollberg

Forum 8

4.104 LCIF Diagnostics on RAID for Validation of Collisional-Radiative Models in Tokamak Plasmas

Dongcheol Seo

Forum 8

4.105 Development of the D-alpha line measurement system for Tungsten Divertor in KSTAR

Sanath Shetty

Forum 8

4.107 Determining the stoichiometry of tungsten borides (W_xB_y) using LIBS extended to vacuum UV spectra range

Lauren Nuckols

Forum 8

4.108 Development and Heat Flux Testing of Actively Cooled, Long Pulse Sample Probe for the WEST Tokamak

Alysée Khan

Forum 8

4.110 Design of a Fast Reciprocating Diagnostic to characterize the plasma boundary in TCV

C. Christopher Klepper

Forum 8

4.111 Reactor-relevant sensing of enhanced PSI phenomena via the sub-divertor: an exploratory study

Trenton Brewer

Forum 8

4.112 Langmuir probe and infrared thermography measurements of wide and narrow heat flux profiles in the ST40 tokamak

Kyu-Dong Lee

Forum 8

4.113 Daily wall condition assessment using ECE measurements during KSTAR wall reference discharge

Seungmin Bong

Forum 8

4.114 Investigation of the noise crosstalk associated with bias-voltage swept KSTAR divertor Langmuir probes depending on the waveforms