

Session Program

17-22 May 2026



27th PSI Conference
Regensburg 2026

27th PSI

Postersession 4

marinaforum REGENSBURG

Friday 22 May

09:50

Postersession 4: Tracks F, G and I

Poster Session

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

Speaker

Dirk Wunderlich

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

Speaker

Jerome Moritz

4.073 Validation of nitrogen-seeded XPR simulations and comparison with other impurities on ASDEX Upgrade using JOREK

Speaker

Máté Szűcs

4.086 Simulation study of SF- divertor particle dispersion and detachment in HL-3 by SOLPS-ITER

Speaker

Hailong Du

4.092 TALIF on Magnum-PSI to characterize ground state atomic hydrogen in detached conditions

Speaker

Ivo Classen

4.051 Implementation of core-edge coupling using ETS-PAF and SOLPS-ITER

Speaker

David Coster

4.093 Removal of Boron Mixed Contaminant Films on Platinum Mirror

Speaker

Dr Laurent Marot

4.050 Assessment of the fluid transport model for neutral atoms in Hermes-3 in non-axisymmetric geometries

Speaker

Annika Lisa Stier

4.090 Summary of Boundary Physics Work at CFS in Support of SPARC Operations

Speaker

Tom Looby

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

Speaker
Floris Scharmer

4.074 JOREK simulations on the X-point radiator formation and its movement in ASDEX Upgrade

Speaker
Mr Yu-Chih Liang

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

Speaker
Alysée Khan

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

Speaker
Trenton Brewer

4.094 Calibration of LIBS diagnostics operated on remote handling arm in JET

Speaker
Dr Gennady Sergienko

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

Speaker
Yinghan Wang

4.075 Radiation Dependence on Divertor Leg Length in Detachment on DIII-D

Speaker
Morgan Shafer

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

Speaker
Rick van Schaik

4.036 Investigation of Machine Learning based neutral transport model in UEDGE

Speaker
Maxim Umansky

4.056 Progress in edge turbulence modelling with self-consistent neutrals in SOLEDGE3X

Speaker
Bridget McGibbon

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

Speaker
Peeter Paris

4.012 SOLPS-ITER as open-source software

Speaker
Xavier Bonnin

4.096 Ex-situ analysis of JET plasma-facing components using laser induced breakdown spectroscopy in support of post-DTE3 in-situ measurements**Speaker**

Jari Likonen

4.059 Impact of inner leg total flux compression on divertor detachment in MAST-Upgrade**Speaker**

Fabio Federici

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**Speaker**

Tsunehiro Morita

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

Christine Stollberg

4.062 Development of a Large-Diameter High-Density Hydrogen Plasma Source and Initial Heat-Flux Measurements in Pilot GAMMA PDX-SC**Speaker**

Reina Miyauchi

4.089 JOREK transient detachment simulations with kinetic neutral collisions: initial results for ASDEX Upgrade**Speaker**

Daniël Maris

4.091 Assessment of power exhaust capabilities on the academic tokamak TRUST with the SOLPS-ITER code package**Speaker**

Christian Avanzato

4.054 Coupling of the neutral code Eirene and the gyrokinetic code GENE-X.**Speaker**

Jonathan Roeltgen

4.057 Predictive SOLPS-ITER simulations of tokamak COMPASS Upgrade: progress from structured grids to Wide Grids**Speaker**

Kateřina Hromasová

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

Dr Kyu-Dong Lee

4.055 Experimental Determination of Diffusion Coefficients near a Magnetic X-Point in a Partially Ionized, Partially Magnetized Plasma

Speaker

Hoiyun Jeong

4.058 Buffering of transients via fuelling and impurity seeding in a detached MAST-U Super-X divertor**Speaker**

Mr Jack Flanagan

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

Kota TAKEDA

4.052 Towards Divertor and Heat Exhaust Modelling for Quasi-Isodynamic Stellarators with JOREK**Speaker**

Elias Waagaard

4.016 Impact of the Lyman alpha discrepancy on He EDGE2D-EIRENE simulations**Speaker**

Kerry Lawson

4.061 Assessment of the H-mode DTT Scenario A in partially detached divertor conditions**Speaker**

Dr Giulio Rubino

4.077 Reduced boundary models for the ITER Pulse Design Simulator**Speaker**

Mate Karacsonyi

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

Dr Dongcheol Seo

4.076 Heat load assessment on European low-aspect ratio DEMO (DEMO-LAR) first wall**Speaker**

Matteo Maria Robaldo

4.060 Preliminary X-Point Radiator Experiments on ST40**Speaker**

Joseph Bryant

4.071 Optimization of the DTT Inner Limiter Through PFCflux Heat Load Simulations**Speaker**

Francesca Zarotti

4.067 Lithium Vapor Cave Performance Uncertainty Due to SOL Cross-Field Transport and Deuterium Recycling Variations**Speaker**

Eric Emdee

4.081 Influence of target chamber geometry on impurity dynamics and neutral pressure in ARC-class divertor legs**Speaker**

Rebecca Masline

4.084 Neutral Transport in the Vacuum Region and Its Impact on Detachment Physics**Speaker**

Menglong Zhao

4.069 Detachment of high power discharges in TCV X-point target divertor**Speaker**

Kenneth Lee

4.019 UEDGE simulations with drifts of snowflake divertor experiments at MAST-U**Speaker**

Vsevolod Soukhanovskii

4.020 Analysis and validation of k-model for anomalous transport with data from the TCV-X23 discharge**Speaker**

Wouter Dekeyser

4.070 SOLEDGE3X Predictions for Initial Lithium Vapor Cave Divertor Experiments on NSTX-U**Speaker**

Margaret Porcelli

4.083 Analysis framework for quantitative understanding of power losses during transients within detachment, with 2D inference of plasma parameters during ELM burn-through**Speaker**

Dr Kevin Verhaegh

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

Sanath Shetty

4.068 The X-Point radiating regime at JET with mixed impurities**Speaker**

Matthias Bernert

4.045 Inline Deep Surrogates for Accelerating SOLPS-ITER Simulations**Speaker**

Abdourahmane Diaw

4.082 Divertor shaping as a continuum strategy for tackling power exhaust**Speaker**

Kevin Verhaegh

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

Speaker

Lauren Nuckols

4.080 Characterizing Attached Alternative Divertor Configurations in Deuterium and Hydrogen on ASDEX Upgrade**Speaker**

Dominik Brida

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

Tanmay Macwan

4.044 Improved Density Build-Up in Stellarator Island Divertors**Speaker**

Sergei Makarov

4.018 Effect of magnetic field gradient on detached plasma formation in a linear diverter simulator TPDsheet-ICR**Speaker**

Akira TONEGAWA

4.098 The case for multiband infrared imaging in fusion devices**Speaker**

Adam McLean

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

Robert James Davies

4.095 Direct measurement of heat flux deposition on the first wall from neutral beam shine-through in DIII-D tokamak**Speaker**

Jun Ren

4.009 Simulation study of the influence on pedestal instabilities due to impurities seeded by supersonic molecular beam injection**Speaker**

Yuchen Xu

4.015 Electron density re-increase associated with a recombination-process transition during neutral gas injection in a GAMMA 10/PDX divertor simulated plasma**Speaker**

Mr Satoshi TAKAHASHI

4.010 Development of the three-dimensional simulation of scrape-off layer plasma transport code using finite volume method**Speaker**

Jiafeng He

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

Kwan Chul Lee

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

Seungmin Bong

4.078 Neural Network Prediction of Scrape-Off Layer and Divertor Physics for SPARC**Speaker**

Stefan Dasbach

4.064 The effect of fluid neutral momentum on 1D detachment burn-through for STEP**Speaker**

Mr Lloyd Baker

4.046 Neutral transport surrogate model development for coupling to plasma simulation**Speaker**

George Wilkie

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**Speaker**

Prof. Naomichi Ezumi

4.017 Describing the island divertor physics via simplified models**Speaker**

Nassim Maaziz

4.023 Development of a Fluid Code for Simulating Plasma Transport in MPS-LD linear plasma device**Speaker**

Xiuxin Tang

4.097 Depth-Resolved ps-LIBS Characterization of Boron/Deuterium and Deuterium- Loaded Boron Coatings for Fusion Plasma-Facing Applications**Speaker**

K. E. Ramachandran

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

C. Christopher Klepper

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

Speaker
Eunnam Bang

4.053 Global Fluid Simulations in the W7-X Divertor: Development and Initial Benchmarking

Speaker
David Bold

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

Speaker
Richard Christian Bergmayr

4.065 SOLPS-ITER simulations for SPARC advanced divertor configurations

Speaker
Dr Haosheng Wu

4.099 A versatile Langmuir probe for measuring the edge structure of HSX

Speaker
Alex Klasing

4.049 Investigating the Sensitivity of CARS Diagnostics for Measuring Rovibrational Populations of Hydrogen in Divertor-relevant Plasmas

Speaker
Kay Schutjes

4.063 Response of JT-60SA radiation profile to gas injection toward radiation feedback control by transient analysis using integrated divertor code SONIC

Speaker
Ryuichi Sano

12:20