

## Plasma Physics Division Fachverband Plasmaphysik (P)

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### Overview of Invited Talks and Sessions (Lecture halls ZHG102 and ZHG006; Poster: ZHG Foyer 1. OG)

#### Plenary Talk of the Plasma Physics Division

PV IX Thu 9:45–10:30 ZHG011 **Negative hydrogen ion sources - utilizing low temperature plasmas in ITER's neutral beam systems** — ●URSEL FANTZ, IPP NNBI TEAM

#### Invited Talks

P 1.1 Mon 13:45–14:15 ZHG102 **On the way to a fusion power plant** — ●FELIX WARMER

P 2.1 Mon 13:45–14:15 ZHG006 **Nanosecond pulse generators for gas discharges** — ●TOM HUISKAMP, JEROEN VAN OORSCHOT, CHIEL TON, GUUS PEMEN

P 2.4 Mon 14:45–15:15 ZHG006 **Multimodal Diagnostic Approaches and Interactive Analysis of Mode Transitions in the kINPen Plasma Jet Interacting with Surfaces** — ●TORSTEN GERLING, HANS HÖFT, SANDER BEKESCHUS, MARKUS M. BECKER, KLAUS-DIETER WELTMANN, PHILIPP MATTERN

P 3.1 Mon 16:15–16:45 ZHG102 **Flux Pumping for High Performance Tokamak Scenarios** — ●A. BOCK, A. BURCKHART, G. PUCELLA, F. AURIEMMA, D. KEELING, D. KING, C. CHALLIS, V. IGOCHINE, R. SCHRAMM, J. STOBER, T. PÜTTERICH, R. FISCHER, J. HOBIRK, N. HAWKES, H. ZHANG, E. JOFFRIN, M. BARUZZO, C. PIRON, P. JACQUET, JET CONTRIBUTORS, THE ASDEX UPGRADE TEAM

P 4.1 Mon 16:15–16:45 ZHG006 **Plasma wind tunnel and plasma propulsion** — ●GEORG HERDRICH, HENDRIK BURGHHAUS, CLEMENS KAISER, JOHANNES OSWALD, ADAM PAGAN, ALEXANDER SCHLITZER, MARTIN EBERHART, STEFAN LÖHLE, CONSTANTIN TRAUB, MARCEL PFEIFFER, STEFANOS FASOULAS

P 4.3 Mon 17:00–17:30 ZHG006 **Force profile and charge estimation of a single particle in the sheath of a dual-frequency CCP** — ●JESSICA NIEMANN, VIKTOR SCHNEIDER, HOLGER KERSTEN

P 5.1 Tue 11:00–11:30 ZHG102 **Mode activity at the Wendelstein 7-X stellarator - Turbulence driven Alfvén modes** — ●S. VAZ MENDES, K. RAHBARNIA, H. THOMSEN, C. BÜSCHEL, J. RIEMANN, C. SLABY, R. KLEIBER, A. KÖNIES, M. BORCHARDT, J.P. BÄHNER, A. VON STECHOW, WENDELSTEIN 7-X TEAM

P 6.1 Tue 11:00–11:30 ZHG006 **Spatially and temporally resolved electric fields in an RF-APPJ measured by E-FISH** — ●INNA OREL, NIKITA LEPIKHIN, ZOLTAN DONKO, DIRK LUGGENHÖLSCHER, UWE CZARNETZKI

P 7.1 Tue 13:45–14:15 ZHG102 **Impurity Transport in Wendelstein 7-X: Basics and Experimental Observations** — ●BIRGER BUTTENSCHÖN, THOMAS WEGNER, THILO ROMBA, DAIHONG ZHANG, FELIX REIMOLD, ALICE BONCIARELLI, THE W7-X TEAM

P 8.1 Tue 13:45–14:15 ZHG006 **Status and outlook for CO<sub>2</sub> conversion with microwave plasmas** — ●ANTE HECIMOVIC, CHRISTIAN K. KIEFER, ARNE MEINDL, RODRIGO ANTUNES, URSEL FANTZ

P 8.4 Tue 14:45–15:15 ZHG006 **Plasma activation of low-energy molecules using the example of nitrogen** — ●MARIAGRAZIA TROIA, KATHARINA WIEGERS, ANDREAS SCHULZ, MATTHIAS WALKER

P 9.1	Tue	16:15–16:45	ZHG102	<b>In-vessel and depth-resolved hydrogen isotope composition analysis in JET by LIBS operated on a remote handling arm</b> — ●RONGXING YI, RAHUL RAYAPROLU, GENNADY SERGIENKO, ERIK WUEST, MARC SACKERS, TIMO DITTMAR, SEBASTIJAN BREZINSEK
P 11.1	Wed	11:00–11:30	ZHG102	<b>Ab initio path integral Monte Carlo simulation of warm dense matter</b> — ●TOBIAS DORNHEIM
P 12.1	Wed	11:00–11:30	ZHG006	<b>Using dusty plasmas to measure low-electron sticking coefficients of dielectric materials</b> — ●ARMIN MENGEL, ISABEL KÖNIG, LORIN S. MATTHEWS, FRANZ X. BRONOLD, FRANKO GREINER
P 14.1	Wed	13:45–14:15	ZHG006	<b>Carbon Dioxide Splitting in Dielectric Barrier Discharges: Power Dissipation and Plasma Chemistry</b> — ●RONNY BRANDENBURG, MILKO SCHIORLIN, VOLKER BRÜSER
P 14.4	Wed	14:45–15:15	ZHG006	<b>Insights into Mode Transitions and Reactive Species Densities in a Micro Cavity Plasma Array</b> — ●DAVID STEUER, HENRIK VAN IMPEL, VOLKER SCHULZ-VON DER GATHEN, MARC BÖKE, JUDITH GOLDA
P 18.1	Thu	11:00–11:30	ZHG102	<b>Simulating W erosion, transport, and deposition in Ne-seeded discharges in ITER with full-W wall</b> — ●CHRISTOPH BAUMANN, JURI ROMAZANOV, SEBASTIAN RODE, ANDREAS KIRSCHNER, SEBASTIJAN BREZINSEK, TOM WAUTERS, RICHARD PITTS
P 19.1	Thu	11:00–11:30	ZHG006	<b>A plasma process model for high power impulse magnetron sputtering discharges</b> — ●MARTIN RUDOLPH, DANIEL LUNDIN, JON TOMAS GUDMUNDSSON
P 20.1	Thu	13:45–14:15	ZHG102	<b>First applications of the kinetic ion transport module in the EMC3-EIRENE code package</b> — ●DEREK HARTING, DIRK REISER, CHRISTOPH BAUMANN, SEBASTIAN RODE, JURI ROMAZANOV, SEBASTIJAN BREZINSEK, HEINKE FRERICHS, ALEXANDER KNIEPS, YUHE FENG
P 20.3	Thu	14:40–15:10	ZHG102	<b>Simulating boundary turbulence in fusion reactors in different confinement, ELM and detachment regimes</b> — ●WLADIMIR ZHOLOBENKO, ANDREAS STEGMEIR, KAIYU ZHANG, KONRAD EDER, JAN PFENNIG, CHRISTOPH PITZAL, PHILIPP ULBL, MATTHIAS BERNERT, MICHAEL GRIENER, THE ASDEX UPGRADE TEAM
P 21.1	Thu	13:45–14:15	ZHG006	<b>Vacuum UV spectroscopy at atmospheric pressure plasmas utilizing silicon nitride membranes</b> — ●LUKA HANSEN, GÖRKEM BILGIN, HENDRIK KERSTEN, JAN BENEDIKT
P 21.4	Thu	14:45–15:15	ZHG006	<b>Hybrid fluid/MC simulations of radio-frequency atmospheric pressure plasma jets</b> — ●MATE VASS, PETER HARTMANN, ZOLTAN DONKO, IHOR KOROLOV, THOMAS MUSSENBRÖCK, JULIAN SCHULZE
P 22.1	Thu	16:15–16:45	ZHG102	<b>High-resolution optical emission spectroscopy of neutral W lines: comparing near-threshold sputtering of W with different crystal orientation in PSI-2</b> — ●MARC SACKERS, OLEKSANDR MARCHUK, STEPHAN ERTMER, SEBASTIJAN BREZINSEK, FREDRIC GRANBERG, ARKADI KRETER
P 23.1	Thu	16:15–16:45	ZHG006	<b>Electric Field Determination for Fundamental and Applied Discharge Physics</b> — ●TOMAS HODER

### Invited Talks of the joint Symposium Turbulence in Space and Fusion Plasmas (SYSF)

See SYSF for the full program of the symposium.

SYSF 1.1	Wed	13:45–14:15	ZHG101	<b>Addressing turbulence questions in the Wendelstein 7-X stellarator device - a combined experimental and theoretical approach</b> — ●JOSEFINE PROLL, PAUL MULHOLLAND, MJ PUESCHEL, MAIKEL MORREN, GAVIN WEIR, KSENIA ALEYNIKOVA, ADRIAN VON STECHOW, PAVLOS XANTHOPOULOS, GABRIEL PLUNK, THE W7-X TEAM
SYSF 1.2	Wed	14:15–14:45	ZHG101	<b>Particle acceleration and transport in astrophysical, magnetized turbulent plasmas</b> — ●MARTIN LEMOINE
SYSF 1.3	Wed	14:45–15:15	ZHG101	<b>Turbulence in the young solar wind, results from Solar Orbiter and Parker Solar Probe</b> — ●ROBERT WICKS, UTSAV PANCHAL, JULIA STAWARZ, STEFAN LOTZ, DU TOIT STRAUSS, AMORE NEL
SYSF 1.4	Wed	15:15–15:45	ZHG101	<b>Digital Solutions for EUROfusion</b> — ●VOLKER NAULIN

## Sessions

P 1.1–1.5	Mon	13:45–15:55	ZHG102	<b>Magnetic Confinment Fusion/HEPP I</b>
P 2.1–2.6	Mon	13:45–15:45	ZHG006	<b>Atmospheric Plasmas and their Applications I</b>
P 3.1–3.4	Mon	16:15–18:00	ZHG102	<b>Magnetic Confinment Fusion/HEPP II</b>
P 4.1–4.4	Mon	16:15–17:45	ZHG006	<b>Low Pressure Plasmas and their Applications I</b>
P 5.1–5.4	Tue	11:00–12:35	ZHG102	<b>Magnetic Confinment Fusion/HEPP III</b>
P 6.1–6.5	Tue	11:00–12:30	ZHG006	<b>Atmospheric Plasmas and their Applications II</b>
P 7.1–7.5	Tue	13:45–15:55	ZHG102	<b>Magnetic Confinment Fusion/HEPP IV</b>
P 8.1–8.6	Tue	13:45–15:45	ZHG006	<b>Atmospheric Plasmas and their Applications III</b>
P 9.1–9.3	Tue	16:15–17:15	ZHG102	<b>Plasma Wall Interaction</b>
P 10.1–10.54	Tue	16:15–18:15	ZHG Foyer 1. OG	<b>Poster Session I</b>
P 11.1–11.4	Wed	11:00–12:15	ZHG102	<b>Laser Plasmas</b>
P 12.1–12.4	Wed	11:00–12:15	ZHG006	<b>Complex Plasmas and Dusty Plasmas I</b>
P 13	Wed	12:20–13:20	ZHG102	<b>Members' Assembly</b>
P 14.1–14.5	Wed	13:45–15:30	ZHG006	<b>Atmospheric Plasmas and their Applications IV</b>
P 15.1–15.6	Wed	16:15–17:45	ZHG102	<b>Astrophysical Plasmas</b>
P 16.1–16.5	Wed	16:15–17:30	ZHG006	<b>Complex Plasmas and Dusty Plasmas II</b>
P 17.1–17.49	Wed	16:15–18:15	ZHG Foyer 1. OG	<b>Poster Session II</b>
P 18.1–18.4	Thu	11:00–12:35	ZHG102	<b>Codes and Modeling/HEPP</b>
P 19.1–19.5	Thu	11:00–12:30	ZHG006	<b>Low Pressure Plasmas and their Applications II</b>
P 20.1–20.5	Thu	13:45–15:50	ZHG102	<b>Magnetic Confinment Fusion/HEPP V</b>
P 21.1–21.6	Thu	13:45–15:45	ZHG006	<b>Atmospheric Plasmas and their Applications V</b>
P 22.1–22.3	Thu	16:15–17:35	ZHG102	<b>Plasma Wall Interaction/HEPP</b>
P 23.1–23.6	Thu	16:15–18:00	ZHG006	<b>Atmospheric Plasmas and their Applications VI</b>

## Members' Assembly of the Plasma Physics Division

Wednesday 12:20–13:20 ZHG102

Small snack included :-)

- Report
- Election of the new board members
- Miscellaneous