

# ISP Workshop on Pulsed Power Generators and Related Technologies

## Workshop Agenda

### Monday, 10 February 2025

- Place:** Hörsaal D2, Max Planck Institute for Plasma Physics  
Boltzmannstraße 2, 85748 Garching, Germany
- 09h00** **Registration & Welcome coffee**
- 09h45** **Welcome**  
E. Spahn – Chairman of the Int. Society on Pulsed Power Applications e.V.
- 10h00** **Session I – Session chair: Markus Teschke (IPP Garching)**  
Compact Modular Pulse Generator  
> *Ahmet Kilinc (HVP GmbH, Martinsried, Germany)*  
  
High-Current Supercapacitor Pulse-Testing  
> *Fabian Albrecht (Helmut Schmidt University Hamburg, Germany)*  
  
ASDEX Upgrade – Overview and Goals  
> *Markus Teschke (Max Planck Institute for Plasma Physics, Garching)*  
  
Experimental Power Supply (ESV) - Overview and Challenges  
> *Claus-Peter Käsemann (Max Planck Institute for Plasma Physics, Garching)*
- 12h00** **Lunch at IPP cantina**
- 13h15** **Lab tour ASDEX Upgrade**
- 15h50** **Coffee break**
- 16h30** **ISP member meeting** (see Agenda at the end)
- 19h30** **Dinner at Der Pschorr, Viktualienmarkt 15, 80331 München**

## Tuesday, 11 February 2024

### 9h00 **Session II** – *Session chair: Ahmet Kilinc (HVP GmbH)*

Flexible High Voltage Pulse Generators from Berkeley Nucleonics  
> *Roberto Foddis (Berkeley Nucleonics Corp., San Rafael, USA)*

IMG research

> *Jereon van Oorschot (Eindhoven University of Technology, The Netherlands)*

Design and calibration of fast temporal resolution (< 1ns) capacitive voltage dividers and Rogowski coils for pulsed power

> *Luke Silvestre (Eindhoven University of Technology, The Netherlands)*

Minimizing Losses in an LC-Resonant Capacitor Charging Topology

> *Felix Haag (Helmut Schmidt University Hamburg, Germany, French-German Research Institute of Saint-Louis, France)*

The proper use of SI-unit prefixes

> *Thorbjörn Sjaenen (Ostfalia University of Applied Sciences, Wolfenbüttel, Germany)*

### 10h40 **Coffee break**

### 11h20 **Session III** – *Session chair: Oliver Liebfried (Institute Saint-Louis)*

Gyrotron Power Supplies

> *Michael Kempkes (Diversified Technologies, Inc., Bedford, USA)*

Overview of the solid-state pulsed power projects carried out in the SIAME laboratory

> *Anton Gusev (University of Pau, France)*

Status and recent results on the pulse generator design at KIT/IHM

> *Martin Sack (Karlsruhe Institute of Technology, Germany)*

Large-Signal Modelling of GaN HEMTs

> *Ivan Vorotiahin (Karlsruhe Institute of Technology, Germany)*

### 12h45 **Announcement: PPPS 2025**

### 13h00 **Departure / Lunch at IPP cantina at own expense**



Building	Facility/Department/Rooms
D2	Arnulf-Schlüter-Hörsaal; Bereich „Numerische Methoden der Plasmaphysik“
D2A	Besucherzentrum; Bibliothek
D2, D2B	Max Planck Computing and Data Facility (vormals RZG)
C2	Kantine; Gäste-Casino
L6	Fusionsanlage ASDEX Upgrade
L1	Tandem-Beschleuniger
L1, L3, L3M, L4, L5, L6, D3, W2	Bereich „Plasmarand und Wand“ (E2M)
L2, L5, L5E, L6, I1, HS1 - HS3, F5, Ni1 - Ni3	Bereich „Tokamak-Szenario-Entwicklung“ (E1)
L5, L6	Bereich „Tokamaktheorie“ (TOK)
L7	Testanlage ELISE
I1, L7, L7A	Bereich „ITER-Technologie und -Diagnostik“ (IT&D)
ZW1 - ZW3, L1, L2, M1, W1	Integriertes Technikzentrum (ITZ)
H1	Direktorium; Verwaltung;
EZ1 - EZ4	Energiezentrale 1 bis 4
D1, D1A	Gäste: Fusion for Energy (F4E); JT60-SA; FRM II
I1	Gäste: „Medium-Size Tokamak Campaign“ (MST1), EUROfusion
L4, L7A	Gäste: FRM II
R1, T1	Gäste: Excellence Cluster Universe
R2, R3	Gäste: Programme Management Unit, EUROfusion
MPA	Max-Planck-Institut für Astrophysik
MPE	Max-Planck-Institut für extraterrestrische Physik
MPQ	Max-Planck-Institut für Quantenoptik
Haltestelle U6	„Garching-Forschungszentrum“
Haltestelle	Bus-Linien Nr. 230, 292, 690

## Agenda of the ISP Member Meeting

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1. Welcome and nomination of the secretary (Spahn)
2. Resolution of the agenda
3. Report of the managing committee (Spahn)
4. Current topics (Spahn)
  - a) EAPPC 2024 and ISP-award
  - b) 4<sup>th</sup> ISP PhD workshop in Pau
  - c) Members
  - d) ...
5. Report of the treasurer (Liebfried/Spahn)
6. Report of the cash auditors (Claus Strowitzki, Jeroen Van Oorschot)
7. Release of the managing committee
8. Election of the cash auditors
9. Annual ISP-workshop; financial support by ISP
10. Resolution of the budget 2025
11. Appointed dates
12. Miscellaneous