

# ISP Workshop on Advanced Pulsed Power Technologies

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PPM POWER



High Voltage Products, High Voltage Experts.



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## Workshop Agenda

### Monday, 16 February 2026

Place: St Aldate's Tavern, 108 St Aldate's, Oxford OX1

18h00 Arrival and Get2gether sponsored by PPM

### Tuesday, 17 February 2026

Place: Oxford Town Hall, Oxford, UK – Assemblies room

09h00 Registration & Welcome coffee

09h45 Welcome

E. Spahn – Chairman of the Int. Society on Pulsed Power Applications e.V.

10h00 Session I – Session chair: Matthew Woodyard (AWE)

Prototype Electromagnetic Interaction Structure Manufacture and  
Characterization for Frequencies from X-Band to Ka-Band for Pulsed  
Power-Driven High Power Microwave Generation  
> *Edl Schamiloglu (University of New Mexico, USA)*

A history of pulsed power at AWE

> *Richard Moore (AWE, UK)*

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

Recent research on HV pulse generators

> *Rainer Bischoff (ISL, France-Germany)*

FLARE - A Bold Strategy to Unlock Fusion Power

> *Hugo Doyle (FLF, UK)*

N/A

> *Thanasi Frost (MBDA, UK)*

Advances in Pulse Power Capacitors

> *Thomas Ebel (University of Southern Denmark, Denmark)*

**12h00** **Lunch**

**13h30** **Lab tours**



**16h00** **Coffee break**

**16h30** **ISP member meeting** (see Agenda at the end)

**19h30** **Dinner at St Hilda's College, Cowley Place, Oxford OX4 1DY**

## Wednesday, 11 February 2024

**9h00** **Session II – Session chair: Anton Gusev (UPPA)**

Experimental Study and TCAD Modeling of Rectifier Diodes Used as Photoconductive Switches for High-Voltage Pulse Generation

> *Lionel Michard (University of Limoges, France)*

From Mona Lisa to Mohsena HSSM: Story of the Evolution of a High-Voltage Solid-State Switch Module

> *Mohsen Mortazavi (Eindhoven University of Technology, The Netherlands)*

Lessons learned from 20-kV and 100-kV solid-state Marx generators for developing a 700-kV solid-state Marx generator

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

Design of a 300-kV Scalable High-Voltage, High-Current Pulse Generator for Flexible Microsecond Pulses

> *Faisal Mehmood (Eindhoven University of Technology, Netherlands)*

All-Solid-State Gigawatt-Class Pulsed Power Generator Based on Custom SOS Diodes: Status and Recent Advances

> *Anton Gusev (Université de Pau et des Pays de l'Adour (UPPA), France)*

Fast Semiconductor Closing Switches for Pulsed Power Applications

> *Jane Lehr (University of New Mexico, USA)*

Rise time improvements on a 20kV 50ns solid state switch assembly by impedance adjustments

> *Michael Osemann (Research Instruments GmbH, Germany)*

350 kA Passively-Activated Tokamak Protection Switch for Runaway Electron Mitigation

> *Kathleen Quinlan (Diversified Technologies, Inc., USA)*

**10h40 Coffee break**

**11h20 Session III – Session chair: Oliver Liebfried (ISL)**

The use of pulsed power for efficient hydrogen production

> *Peter R Rushforth (Loughborough University / SJPI, UK)*

When pulsed voltage speaks through magnetism: probing the output voltage of spiral generators through a magnetic flux measurement

> *Thor Wens (University of Liège, Belgium)*

Pulsed Power at Imperial College

> *Simon Bland (Imperial College London, UK)*

Reproducing electric arcs for electromagnetic launcher muzzle arcs studies

> *Vincent Andraud (ISL, France-Germany)*

Modelling of Fast-Switching GaN Transistors Based on Pulsed S-Parameter Measurements

> *Ivan Vorotiahin (KIT, Germany)*

An ultra-fast switch technology concept for future beam transfer at CERN using impact ionization triggering of high voltage thyristors.

> *Alicia Ana del Barrio Montanes (enaDyne, Germany)*

Development towards a fast pulse power supply for a muon trap

> *Johannes Alt (KIT, Germany)*

Semiconductor Thyratron Replacement for Extract Kicker Power Supplies

> *Maliq Martin (ISIS Neutron and Muon Source, STFC, UK)*

**13h00 Departure**

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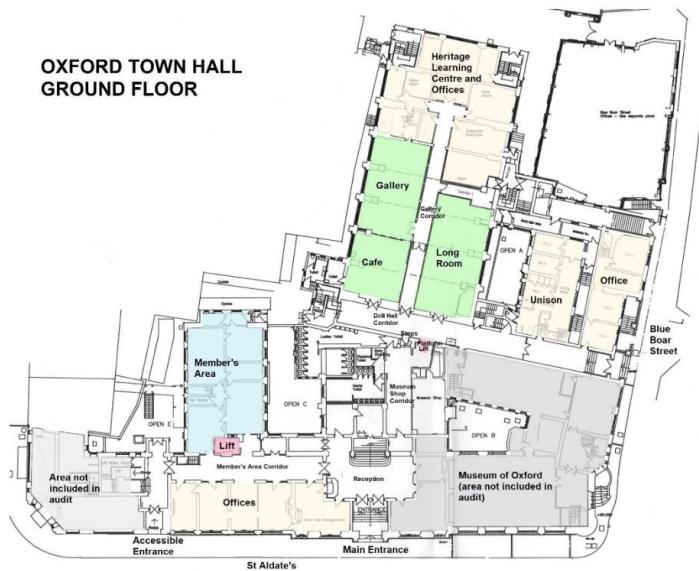
## Agenda of the ISP Member Meeting

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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) PPPS 2025
  - b) 5<sup>th</sup> ISP PhD workshop in Eindhoven
  - c) Members
  - d) PayPal account
  - e) ...
5. Report of the treasurer (Liebfried/Spahn)
6. Report of the cash auditors (André Geiger / Luke Silvestre)
7. Release of the managing committee
8. Election of the cash auditors
9. Resolution of the budget 2026
10. Appointed dates
11. Miscellaneous

## Floor Plan Oxford Town Hall

### OXFORD TOWN HALL GROUND FLOOR



### OXFORD TOWN HALL FIRST FLOOR

