

ISP Workshop on Advanced Pulsed Power Technologies

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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 1BU

18h00 Arrival and Get2gether sponsored by PPM

Tuesday, 17 February 2026

Place: Oxford Town Hall, Oxford, OX1 1BX, UK – Assemblies room

08h30 Registration & Welcome coffee

09h00 Welcome

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

09h15 Session I – Session chair: Georg Müller (KIT)

A history of pulsed power at AWE (*Invited talk: 30 min*)

> Richard Moore (AWE, UK)

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)

Nanoseconds High Voltage Pulse Generators from Berkeley Nucleonics

> Roberto Foddis (Berkeley Nucleonics Corp., San Rafael, USA)

Experimental Study and TCAD Modeling of Rectifier Diodes Used as Photoconductive Switches for High-Voltage Pulse Generation
> *Lionel Michard (University of Limoges, France)*

10h30 Poster session and coffee break

Announcement: "The UK Pulsed Power Symposium 2026"

Semiconductor Thyratron Replacement for Extract Kicker Power Supplies
> *Maliq Martin (ISIS Neutron and Muon Source, STFC, UK)*

A High-Voltage Nanosecond Generator for Non-Thermal Plasma Technology

> *Thomas Maysonnave (Université de Pau et des Pays de l'Adour, France)*

Pulsed Power Technologies at University of Strathclyde

> *Igor Timoshkin, Chris Williamson, Timothy Wong, Emma Devine*

Loughborough University, An Overview of Pulsed Power Capability

> *Nigel Seddon, Felipe Iza, Peter Senior, Peter Rushforth*

Developmental Projects at Loughborough University

> *Joe Pout, Fred Owusu-Ansah*

HV Power Supply and Magnet Solutions For Fusion

> *Woodruff Engineering*

11h15 Session II – Session chair: Matthew Woodyard (AWE)

Recent research on HV pulse generators

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

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, France)*

Advances in Pulse Power Capacitors

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

FLARE - A Bold Strategy to Unlock Fusion Power

> *Hugo Doyle (FLF, UK)*

12h15 Group photo

12h20 Lunch

13h30 **Lab tours**



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

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



19h30 **Drinks Reception**

20h00 **Dinner (please check seat allocations)**

Wednesday, 11 February 2026

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

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 the Initial Pulse Module for a 300-kV Scalable High-Voltage, High-Current Pulse Generator for Flexible Microsecond Pulses

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

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*)

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)*

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

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

10h45 Coffee break

11h15 Session IV – Session chair: Oliver Liebfried (ISL)

Pulsed Power at Imperial College

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

The use of pulsed power for efficient hydrogen production

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

Long Life Spark Gap

> *Thanasi Frost (MBDA, UK)*

When pulsed voltage speaks through magnetism: investigating the magnetic nature of a spiral generator

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

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)*

Development towards a fast pulse power supply for a muon trap

> *Johannes Alt (KIT, Germany)*

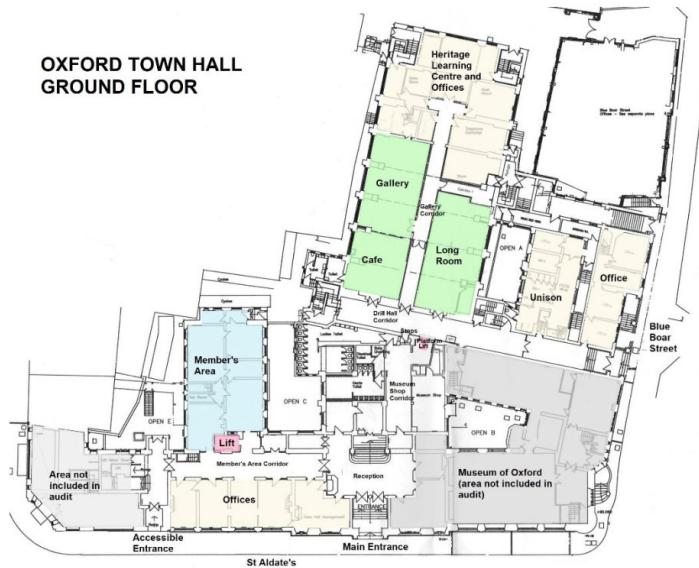
13h00 Departure

Agenda of the ISP Member Meeting

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) 5th ISP PhD workshop in Eindhoven, Netherlands
 - 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

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