

## PROGRAMME

### THURSDAY 1<sup>ST</sup> DECEMBER, 2022

09:00 Registration and security check-in

10:00 Introduction and ISL presentation by C. de Villemagne, Director (ISL, Saint-Louis)

10:20 Welcome and presentation of ISP by Emil Spahn (chairman ISP)

#### Session 1 - Session chair: Emil Spahn (Pulsolution GmbH)

10:35 Dynamic characterization of SiC thyristors with amplifying gate design  
> Kamil Kotra (ISL, Saint-Louis)

11:00 Operating principle and experimental results of high voltage thyristors triggered in impact-ionization wave mode  
> Ejlal Shahriari (University of Pau)

11:25 Impact ionization triggering of small size thyristors  
> Alicia del Barrio (Cern, Meyrin)

**11:50 Lunch at ISL**

#### Session 2 - Session chair: Guus Pemen (University of Eindhoven)

13:00 Investigation of semiconductor diodes as high-voltage opening switches for a nanosecond high-voltage generator  
> Mawuena Degnon (University of Pau)

13:25 Design and production of a low-cost homemade PCB-mounted capacitive divider for frequencies up to hundred MHz  
> Eric Brune (University of Pau)

13:50 Solid-state impedance-matched Marx generators for PAW generation  
> Jeroen van Oorschot (University of Eindhoven)

14:15 Design and evaluation of a new 2.2 MV pulse generator to drive current EMP simulators while reducing SF6 emission  
> Leo Sousbielle (CEA, Gramat)

**14:40 Coffee break**

#### Session 3 - Session chair: Georg Müller (KIT, Eggenstein-Leopoldshafen)

15:10 Development of a novel branch module for an Inductive Adder operated with a short-circuit termination  
> Johannes Ruf (CERN, Meyrin)

15:35 Investigating the electronic emission of a cold velvet cathode in multi-pulse regime  
> Isia Mousseau (CEA, Gramat)

16:00 An active plasma-lens for the ILC positron source driven by MHz HV pulse bursts  
> Niclas Hamann (DESY/University of Hamburg)

16:25 Measurement of the electric field distribution on pulsed beam generators using laser induced fluorescence dip diagnostic  
> Luis Orellana (KIT, Eggenstein-Leopoldshafen)

16:50 Announcement EAPPC 2024 in Amsterdam  
> Guus Pemen (University of Eindhoven)

**17:00 End of day 1**

**18:30 Meeting at Parking lot in front of ISL**

**19:00 Social Event wine tasting and dinner in the cellar restaurant "Spatz" in Weil am Rhein (Germany)**

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### FRIDAY 2<sup>ND</sup> DECEMBER, 2022

09:00 Registration and security check-in

#### Session 4 - Session chair: Oliver Liebfried (ISL, Saint-Louis)

09:30 Research on laser and electromagnetic technologies at ISL  
> TBD

09:55 Experimental implementation of the lightning swept-stroke along an aircraft  
> Vincent Andraud (formerly ONERA, Palaiseau, now ISL, Saint-Louis)

10:20 An augmented multiphase rail launcher with a modular design: First experimental results  
> Florian Zellmer (ISL, Saint-Louis)

10:45 Ultra-compact and high efficient capacitor charger for pulsed power generators  
> Felix Haag (ISL, Saint-Louis)

11:10 Ultra-compact battery-based energy storage topologies in the megawatt power range for charging inductive pulse power generators  
> Fabian Albrecht (ISL, Saint-Louis)

11:35 **Closing remarks & Group photo**

11:50 **Lunch at ISL**

13:00 **Laboratory tour at ISL**

15:00 **Coffee break and end of the event**