



# ADVANCED PROGRAM AND REGISTRATION FORM

## 18<sup>th</sup> European Advanced Technology Workshop on Micropackaging and Thermal management

26<sup>th</sup> & 27<sup>th</sup> March 2025

MERCURE VIEUX PORT



Quai Louis Prunier 17000 La Rochelle - France  
Tel: 33 (0) 5 46 50 61 50  
Email: [H0569@accor.com](mailto:H0569@accor.com).

Hotel reservations will be made by the  
organizing committee

Workshop arrival day:  
Tuesday, 25<sup>th</sup> March 2025

Sponsored by



### WORKSHOP COMMITTEE:

#### Conference chairmen:

France:

Jean-Yves SOULIER (Safran Data Systems)  
Jean-Pierre FRADIN (ICAM Toulouse)  
Bruno LEVRIER (BL Expertises)  
Alexandre VAL (Valeo)

#### Technical Program Committee:

France:

Sandrine LELONG-FENEYROU (Safran Data Systems)  
Raphael SOMMET (XLIM – Limoges University)

Germany:

Mohamad ABO RAS (NANOTEST)  
Vincent AYEL (PPRIME Institute, CNRS-ENSMA- Poitiers University)  
Thomas HARDER (ECPE)

Poland:

Boguslaw WIECEK (Łódź University of Technology, Institute of Electronics)

USA:

Dave SAUMS (DS&A LLC)

Thermal management remains a crucial constraint in electronics packaging and is a mandatory aspect in every industry – aerospace, automotive, consumer, industrial, military - technology roadmap worldwide.

The upcoming workshop will present some latest improvements in thermal management solutions at system level, in power electronics, in materials, in modelling and in techniques for characterizing and testing materials. It will also present some innovative cooling solutions such as two-phase technologies and liquid cooling.

Organized by:

*International Microelectronics Assembly and Packaging Society France*  
17 rue de l'Amiral Hamelin 75016 Paris, France  
E-mail : [imaps.france@orange.fr](mailto:imaps.france@orange.fr)

# CONFERENCE SCHEDULE

## DAY 1 - 26<sup>th</sup> March 2025 (Wednesday)

- 08:30 am** **Opening address & table tops presentation**  
Jean-Yves Soulier, Conference chairman & IMAPS France Treasurer
- SESSION 1: ACTIVE & PASSIVE TWO-PHASE COOLING**  
Chairs: Bruno Levrier (BL Expertises) / Jean-Yves Soulier (Safran Data Systems)
- 08.40 am** **Potentialities of indirect regenerative evaporative cooling of electronic systems in high-ambient temperature and dry-air environment**  
[B. Więcek<sup>1</sup>](#), [M. Felczak<sup>1</sup>](#), [D. Levchenko<sup>2</sup>](#), [R. Olbrycht<sup>1</sup>](#), [M. Kaluża<sup>1</sup>](#)  
(<sup>1</sup>Institute of Marketing and Sustainable Development, Lodz University of Technology, Poland, <sup>2</sup>Institute of Electronics, Lodz University of Technology, Poland)
- 09:05 am** **Micro-structured copper heatsinks fabricated by 3D printing and sintering for improving pool boiling cooling of power transistors**  
[Clément Hugon<sup>1,2</sup>](#), [Yvan Avenas<sup>1</sup>](#), [Samuel Siedel<sup>2</sup>](#), [Jean-Michel Missiaen<sup>2</sup>](#)  
(<sup>1</sup>Grenoble Alpes University, CNRS, Grenoble INP\*, G2Elab, France  
<sup>2</sup>Grenoble Alpes University, CNRS, Grenoble INP\*, SIMAP, France)
- 09:30 am** **Two-phase flow in high aspect ratio channel**  
[Antoine Loehrmann<sup>1</sup>](#), [Etienne Videcoq<sup>2</sup>](#), [Vincent Ayel<sup>2</sup>](#), [Sébastien Dutour<sup>3</sup>](#), [Olivier Crepel<sup>1</sup>](#)  
(<sup>1</sup>Airbus SAS – 1XRE, Blagnac, France ; <sup>2</sup>Institut PPRIME, CNRS-ENSMA-Université de Poitiers, Futuroscope-Chasseneuil, France ; <sup>3</sup>LAPLACE, UPS, INPT, CNRS, Toulouse University, Toulouse, France)
- 10.00 am-10.30 am** **Coffee Break / Table Top Exhibition**
- SESSION 2: THERMAL INTERFACE MATERIAL**  
Chairs: Alexandre Val (Valeo) / Jean-Yves Soulier (Safran Data Systems)
- 10.30 am** **Metal TIMs for Liquid Immersion Applications**  
[Karthik Vijay](#), [Tim Jensen](#)  
(Indium Corporation, USA)
- 10:55 am** **Die Warpage Implications for Thermal Interface Material Selection**  
[Dave Saums](#)  
(DS&A LLC, Amesbury MA, USA)
- 11:20 am** **Novel TIM1 paste development**  
[Dr Liao Yile](#), [Kang SS](#), [Keith Tan](#), [Abito Danila](#), [Lo Miew Wan](#)  
(Heraeus Materials Singapore, Singapore)
- SESSION 3: ELECTRONICS COOLING AT SYSTEM LEVEL**  
Chairs: Bruno Levrier (BL Expertises) / Jean-Yves Soulier (Safran Data Systems)
- 11:45 am** **Evaluating immersion cooling fluids for data centers: a comparative study between hydrocarbon oils and fluorinated fluids**  
[Idriss Mariami](#), [Laura Lecomte](#), [Christophe Dehon](#)  
(Inventec Performance Chemicals, Bry sur Marne, France)
- 12:10 am – 01:40 pm** **Lunch**
- 01:50 pm** **Friction Stir Welding: a game changer for thermal efficiency and cost reduction of liquid cold plates**  
[L. Dubourg](#)  
(Stirweld, Rennes, France)
- 02:15 pm** **Reliability Evaluation of Power Semiconductor Packages and Materials in Single-phase Immersion Cooling Liquids**  
[Stefan Pelties](#), [Günther Lohmann](#), [Michael Bauer](#), [Ida Fischbach](#), [Markus Lang](#), [Ammar Shalgheen](#), [Josef Höglauer](#)  
(Infineon, Germany)
- 02:40 pm** **Transient Power Peak Management for high performance power modules**  
[Rabih Khazaka<sup>1</sup>](#), [Yvan Avenas<sup>2</sup>](#), [Stéphane Azzopardi<sup>1</sup>](#)  
(<sup>1</sup>Safran SA, Safran Tech, Electronic and Electric Systems Department, Chateaufort, France;  
<sup>2</sup>Univ. Grenoble Alpes, CNRS, Grenoble INP, G2Elab, Grenoble, France)
- 03:05 pm** **A comparative study on the thermal shock performance of various baseplate and solder alloy combinations for power modules**  
[Klaus Hoell<sup>1</sup>](#), [Sandra Reisinger<sup>1</sup>](#), [Reinhard Schaumburger<sup>1</sup>](#), [Joseph Hertline<sup>2</sup>](#), [Ryan Mayberry<sup>2</sup>](#), [Aaron Hutzler<sup>3</sup>](#)  
(<sup>1</sup>Schunk Carbon Technology GmbH, Bad Goisern, Austria; <sup>2</sup>Indium Corporation, New York, USA;  
<sup>3</sup>Bond Pulse GmbH, Berlin, Germany)

03:30 pm – 04:00 pm

Coffee Break / Table Top Exhibition

**SESSION 3: MATERIALS & TIM'S**

Chairs: Alexandre Val (Valeo) / Jean-Yves Soulier (Safran Data Systems)

04:00 pm

**Fabrication and characterization of Al/GF, Al/CF and Al/GF+CF composites used for thermal management**

[Jean-François Silvain](#)<sup>1,2</sup>, [Amélie Veillère](#)<sup>1</sup>, [Yongfeng Lu](#)<sup>2</sup>, [Renaud de Langlade](#)<sup>3</sup>

(<sup>1</sup>Institut de Chimie de la Matière Condensée de Bordeaux (ICMCB), CNRS, France, <sup>2</sup>Department of Electrical and Computer Engineering, University of Nebraska-Lincoln, United States, <sup>3</sup>Novapack Technologies, Vezeronce Curtin, France)

04:25 pm

**Thermal Performance of Silver-Diamond Composites**

[E. Neubauer](#), [C. Viadu](#), [L. Zauner](#), [M. Jahn](#), [M. Kitzmantel](#)

(RHP-Technology GmbH, Seibersdorf, Austria)

04:50 pm

**Innovative packaging for RF power components**

[Andréane Cuissart](#)<sup>1</sup>, [A. Jeanmougin](#)<sup>1</sup>, [J.F Goupy](#)<sup>1</sup>, [M. Stanislawiak](#)<sup>1</sup>

[E. Joubert](#)<sup>2</sup>, [P. Dherbecourt](#)<sup>2</sup>

(<sup>1</sup>Thales Land & Air Systems, Ymare, France ; <sup>2</sup>Université de Rouen Normandie, CNRS, Rouen, France,)

05:15 pm

**Advancing thermal management: Next generation TIMs for High Power applications**

[Tarik Grad](#)

(Henkel Adhesive Technologies, Germany)

05:40 pm

**End of 1st day Sessions / Tabletop Exhibition**

06:00 pm – 10:00 pm

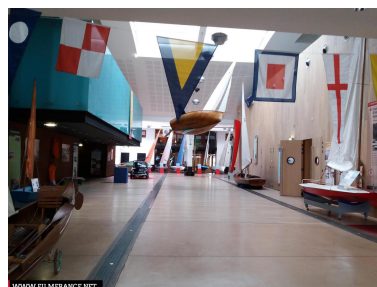
**Social Event : Musée Maritime & Dinner**

Visits will start at 6:00pm with 4 groups



Outdoor visit

7 minutes by walk from Mercure Hotel



Indoor visit

## DAY 2 - 27<sup>th</sup> March 2025 (Thursday)

### SESSION 4: MODELING & SIMULATION, THERMOMECHANICAL ASPECTS

Chairs: Jean-Pierre Fradin (ICAM Toulouse) / Jean-Yves Soulier (Safran Data Systems)

- 08:30 am** Coupled multi-physics simulations applied on mechatronic systems  
[Ayyoub Marouf](#) - (VALEO Power Division, France)
- 08:55 am** Thermal modelling of non-Fourier heat transfer in porous materials using R-L-C electrical analogy  
[M. Strąkowska](#)<sup>1</sup>, [G. De Mey](#)<sup>2</sup>, [B. Wiecek](#)<sup>1</sup>  
(<sup>1</sup>Lodz University of Technology, Lodz, Poland;<sup>2</sup>University of Gent, Gent, Belgium)
- 09:20 am** Model Calibration with Tests of a Multi-Lateral Material Packaging for a Complete Functional Electronic Unit  
[Muriel Sabah](#) - (Safran Electronics and Defense, Massy, France)
- 09:45 am** Dielectric cooling of a medium-voltage power module  
[Amin Al Hinaai](#)<sup>1</sup>, [Till Huesgen](#)<sup>1</sup>, [Cyril Buttay](#)<sup>2</sup>, [Eric Vagnon](#)<sup>2</sup>; [Hugo Reynes](#)<sup>3</sup>, [Besar Asllani](#)<sup>3</sup>, [Cédric Mathieu de Vienne](#)<sup>3</sup>, [Martin Guillet](#)<sup>3</sup>  
(<sup>1</sup>Electronics Integration Laboratory University of Applied Sciences, Kempten, Germany; <sup>2</sup>CNRS, Ecole Centrale de Lyon, INSA Lyon, Université Claude Bernard, Lyon 1, Laboratoire Ampère, Villeurbanne, France; <sup>3</sup>SuperGrid Institute, Villeurbanne, France)

**10:10 am – 10:40 am**

**Coffee Break/ Table top Exhibition**

- 10:40 am** Multiscale thermal and thermomechanical analysis of a SiP using Fan Out Wafer Level Packaging (FO-WLP) technology  
[N'Doua Luc Arnaud Kakou](#)<sup>1</sup>, [Raphaël Sommet](#)<sup>1</sup>, [Vincent Bortolussi](#)<sup>2</sup>, [Anass Jakani](#), [Jean-Christophe Nallatamby](#)<sup>1</sup>  
(<sup>1</sup>XLIM, Pôle Universitaire de Brive, Brive-la-Gaillarde; <sup>2</sup>United Monolithic Semiconductors S.A.S, Villebon sur Yvette ; <sup>3</sup> III-V 1, Palaiseau ; France)

### SESSION 5: CHARACTERIZATION & TESTS

Chairs: Bruno Levrier (BL Expertises) / Mohamad Abo Ras (NANOTEST)

- 11:05 am** Characterization of the convective heat transfer coefficient in a thermal chamber  
[Hugues de Vautibault](#)<sup>1</sup>, [Hélène Neveu](#)<sup>2</sup>  
(<sup>1</sup>Safran Data Systems, Courtaboeuf ; <sup>2</sup>ISAE SUPAERO, France)
- 11:30 am** Using the 2D materials signature for thermal Raman measurements of power devices  
[Mohammed Boussekri](#)<sup>1</sup>, [Mathieu Moreau](#)<sup>1</sup>, [Raphael Sommet](#)<sup>1</sup>; [Dominique Carisetti](#)<sup>2</sup>, [Julie Cholet](#)<sup>2</sup>, [Lucie Frogé](#)<sup>2</sup>, [Eva Desgué](#)<sup>2</sup>, [Patrick Garabedian](#)<sup>2</sup>, [Pierre Legagneux](#)<sup>2</sup>, [Nicolas Sarazin](#)<sup>2</sup>, [David Brunel](#)<sup>2</sup> ; [Pierre Seneor](#)<sup>3</sup>, [Bruno Dlubak](#)<sup>3</sup> [Etienne Carré](#)<sup>3</sup>; [Vincent Renaudin](#)<sup>4</sup>, [Tony Moinet](#)<sup>4</sup>  
(<sup>1</sup>XLIM Brive la Gaillarde, France ; <sup>2</sup>Thales Research and Technologies Palaiseau, France ; <sup>3</sup>Laboratoire Albert FERT, Palaiseau, France ; <sup>4</sup>STMicroelectronics Grenoble and Tours, France)

**12:00 am – 1:30 pm**

**Lunch**
















- 01:40 am** IR failure analysis with laser light excitation  
[Marek Zajaczkowski](#)<sup>1</sup>, [Daniel May](#)<sup>2</sup>, [Kaushal Arun Pareek](#)<sup>1</sup>, [Mohamad Abo Ras](#)<sup>1</sup>  
(<sup>1</sup>Berliner Nanotest und Design GmbH, Berlin, Germany; <sup>2</sup> Technische Universität Chemnitz, Chemnitz, Germany)
- 02:05 am** Thermal analysis of a FO-WLP SiP with Integrated GaN Power Amplifier and GaAs Low Noise Amplifier  
[Anass Jakani](#)<sup>1</sup>, [Jean-Claude Jacquet](#)<sup>1</sup>, [Mohamed Bouzlama](#)<sup>1</sup>, [Vincent Bortolussi](#)<sup>2</sup>, [Raphael Sommet](#)<sup>3</sup>, [Benoit Lambert](#)<sup>2</sup>, [Stéphane Piotrowicz](#)<sup>1</sup>, [Gildas Gauthier](#)<sup>1</sup>  
(<sup>1</sup>III-V Lab ; <sup>2</sup>UMS S.A.S ; <sup>3</sup>XLIM University of Limoges, UMR7252, Limoges, France)
- 02:30 am** Innovative Approaches to GaN HEMT Thermal Characterization  
[Gabor Farkas](#)<sup>1</sup>, [Sandor Ress](#)<sup>1,2</sup>, [Zoltan Sarkani](#)<sup>1</sup>  
(<sup>1</sup>SIEMENS Digital Industry Software, <sup>2</sup>Budapest University of Technology & Economics, Hungary)
- 02:55 am** Direct Dielectric Cooling for Power Electronics in Electric Vehicles: Component-Level Innovations for Advanced Thermal Management  
[Dr Cédric de Vaultx](#), [Erwan Etienne](#), [Julio Guerra](#), [Dr Kamel Azzouz](#)  
(Valeo Power Division, La Verrière, France)

**03:30 pm – 03:40 pm**

**Closure**

**Final coffee break and farewell**

## Exhibition area

Exhibitor Name	Logo
ACCELONIX	
ATHERM	
BOYDCORP	
CTS	
dB&DEGREES	
HEF Group	
HENKEL	
KYOCERA	<p style="text-align: center;">THE NEW VALUE FRONTIER</p> 
METRONELEC	
MICRONOR	
MICROTEST	
RHP	
SCHUNK Group	
SERMA Microelectronics	
SIEMENS	
WATTDESIGN	

# REGISTRATION FORM ATW THERMAL MANAGEMENT

Final Registration ends on 21<sup>th</sup> March 2025

Company / Organization:

Name - First Name:

Email:

Address for Invoice:

## 👉 WORKSHOP FEES INCLUDE:

2 days conference

2 nights Hotel

Arrival on 25<sup>th</sup> March 2025, after 16h00

Departure on 27<sup>th</sup> March

All lunches and dinners from 25<sup>th</sup> March 8:00 pm to 27<sup>th</sup> March 2025 4:00 pm

Registration to website:

[\(https://france.imapseurope.org/event/thermal-2025/\)](https://france.imapseurope.org/event/thermal-2025/)

- |                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| <input type="checkbox"/> IMAPS MEMBER                               | 700 € VAT excluded |
| <input type="checkbox"/> IMAPS NON-MEMBER                           | 800 € VAT excluded |
| <input type="checkbox"/> SPEAKER/CHAIR/TECHNICAL COMMITTEE          | 520 € VAT excluded |
| <input type="checkbox"/> EXHIBITOR                                  | 580 € VAT excluded |
| <input type="checkbox"/> Additional night on 27 <sup>th</sup> March | 140 € VAT excluded |

(VAT isn't due for non-French resident and/or company registered outside France)

Special Diet:     Vegetarian     Other \_\_\_\_\_

Please confirm your attendance to the first day dinner to be held on 25<sup>th</sup> March by ticking the box  or by email to organization.

Reservations to the first day dinner must be submitted by 23<sup>rd</sup> March, latest

## 👉 PAYMENT:

by credit card or even on link: <https://event.imapsfrance.org>

by bank transfer

## IMAPS BANK REFERENCES

IBAN FR 49 3000 2089 4800 0007 9088G 25      BIC CRLYFRPP  
LCL CREDIT LYONNAIS VERSAILLES ST LOUIS 16 RUE ROYALE 78000 VERSAILLES France

E-Mail: [imaps.france@orange.fr](mailto:imaps.france@orange.fr)

## HOW TO REACH DESTINATION OF CONFERENCE HOTEL



**Hotel Mercure Vieux Port**  
Quai Louis Prunier  
17000 La Rochelle - France  
46°09'13.7"N 1°08'58.2"W

### By Car:

- From Paris : A10 Highway + N11 estimated duration 5h00
- From Bordeaux : A10 + A837 Highway ; estimated duration 2h00

### By Airplane:

- Airport Bordeaux - Mérignac ([Arrivals and departures of the day | Bordeaux-Merignac Airport](#))
- Airport Rochefort : ([La Rochelle - Ile de Ré airport: Flights, destinations & services](#))

### By train:

La Rochelle station : <https://www.sncf-connect.com/en-en/>

- 14 trains par day from Paris
  - **15h35 Paris-Montparnasse -18h13 La Rochelle** (suggestion)
  - 16h19 Paris Airport CDG2 TGV Roissy – 20h27 La Rochelle (suggestion)
  - **16h59 La Rochelle – 19h34 Paris – Montparnasse** (suggestion)
  -
- 10 Trains per day from Bordeaux
  - 16h52 Bordeaux – 19h28 La Rochelle (suggestion)

Other possibilities from Nantes, Tours,

**5-6 minutes by walk to reach Train station from Hotel**

