



# ADVANCED PROGRAMME AND REGISTRATION FORM



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

**February 6 & 7, 2013**

### **MERCURE OCEANIDE VIEUX PORT SUD Hotel**

Quai Louis Prunier 17000 La Rochelle France  
Tel : 33 (0) 5 46 50 61 50/Fax : 33 (0) 5 46 41 24 31  
Email : [H0569@accor.com](mailto:H0569@accor.com).

**Hotel reservations will be made by the  
organizing committee  
Reduced fare train tickets**

**Workshop arrival day:  
Tuesday February 5, 2013**



### **WORKSHOP COMMITTEE:**

#### **Conference chairman:**

France: Sandrine LELONG- FENEYROU (ZODIAC AEROSPACE)

#### **Technical Program Committee:**

France: Joël LALLIER, (THALES SYSTEMES AEROPORTES)  
Pierre LEWANDOWSKI (CONTINENTAL AUTOMOTIVE),  
Michel MASSIOT (EGIDE),  
Gilles POUPON (CEA - LETI),  
Jean-Claude RAMES (IMAPS)  
Claude SARNO (THALES AVIONICS),  
Richard SEDDON (TECNALIA AEROSPACE),  
Nick CHANDLER (BAE SYSTEMS),  
Dave SAUMS (DS&A LLC),  
Thomas HARDER (ECPE)

Spain :  
United Kingdom:  
USA:  
Germany:

*The Workshop will present improvements in thermal management materials, components and systems, to provide innovative packaging and cooling solutions for highly integrated power, RF, microwave and other devices and sub-systems.*

*Increases in functionality, complexity, miniaturisation, operating temperature and power output will require advances in thermal solutions at many levels, for military, aerospace, consumer and industrial systems.*

*Industry transition to SiC and GaN devices allows higher operating temperatures with higher heat flux but also greater reliability; these trends also require improvements and changes in packaging and thermal materials.*

*Thermal management has been clearly identified, in industry technology roadmaps worldwide, as a crucial constraint in packaging at all levels.*

- ✦ **Early Registration ends**
- ✦ **Final Registration ends on february**
- ✦ **« Formulaire de Convention de formation sur demande »**

**Organized by:**

**International Microelectronics And Packaging Society France  
49 rue Lamartine 78035 Versailles**

**Tel : + 33 (0) 1 39 67 17 73/ Fax : + 33 (0) 1 39 02 71 93 E-mail : [imaps.france@imapsfrance.org](mailto:imaps.france@imapsfrance.org)**

# CONFERENCES SCHEDULE (Provisional as of November 27, 2012)

## FEBRUARY 6, 2013 (Wednesday)

- 09.00 am** *Opening address: J.M.Yannou, President of IMAPS-France*
- 09.15 am** **Keynote**  
**Thermal Storage Nanocapsules**  
**R. Rodriguez Alonso**, Inasmet Tecnalia (Spain)
- 10.00 am** **SESSION 1 NEW CONCEPTS**  
**Chairs: J.M. Yannou ASE / T. Harder, ECPE**
- 10.00 am** **Miniaturized Frictionless Fan Concept for Thermal Management of Electronics**  
**R. Schacht**, Lausitz University of Applied Sciences, Fraunhofer Enas, Joint lab Berlin (Germany)
- 10.25 am** **Enhanced Boiling Heat Transfer on Micromachined Surfaces Using Acoustic Actuation**  
**A. Glezer**, Georgia Institute of Technology (United States)
- 10.50 am** **Coffee Break/ Table Top Exhibition**
- SESSION 2 MATERIALS**  
**Chairs: P. Lewandowski, Continental Automotive / M. Mermet Guyennet Alstom**
- 11.15 am** **Industrial Application of Cold Spray and Use of this Technology for Thermal Management**  
**S. Hartmann**, Obz Innovation GmbH (Germany)
- 11.40 am** **Thermal Management Materials and Cooling Solutions Made by Rapid Hot Pressing and Rapid Sinter Pressing**  
**E. Neubauer**, Rhp Technology GmbH (Austria)
- 12.05 pm** **Approach for Finding a Proper Golden-Reference Sample for TIM Tester Calibration**  
**A. Vass-Varnai**, Mentor Graphics (Hungary)
- 12.30 pm-02.00 pm** **Lunch**
- SESSION 3 MODELING AND EXPERIMENTAL**  
**Chairs: J. Lallier, Thales / S. Feneyrou, Zodiac Aerospace**
- 02.00 pm** **Application of Complex Thermal Impedance for Multilayer Thermal Structure Investigations**  
**B. Wiecek**, Technical University of Lodz (Poland)
- 02.25 pm** **Thermal Resistance Simulation and Measurement of a Double Sided Cooled Power Module**  
**S. Kraft**, Fraunhofer IISB (Germany)
- 02.50 pm** **Experimental Investigation of High Density Folded Fin Structures for Electronics Cooling Applications**  
**A. Engelhardt**, Thermacore Europe (United Kingdom)
- 03.15 pm** **Practical Evaluation of CFD Models for Heat Sink Design in Photonic System**  
**O. Wittler**, Fraunhofer Berlin (Germany)
- 03.40 pm** **Coffee Break/ Table Top Exhibition**
- SESSION 4 SOLUTIONS INTEGRATED AT SUBSTRATE LEVEL**  
**Chairs: N. Chandler, BAE Systems / B. Braux, Astrium**
- 04.15 pm** **Theoretical Study of the Thermal Impact of a Passive Heat Spreading Layer Integrated in 3D Mobile Device**  
**S. Salman**, CEA, LETI, (France)
- 04.40 pm** **An Integrated Passive Cooling Solution for PCB Substrates**  
**D. Kearney**, J. Griffin, ABB Corporate Centre, (Switzerland)
- 05.05 pm** **Developments and Applications for Thermal Core PCBs**  
**D.L. Saums**, DS&A LLC (United States)
- 05.30 pm** **End of Session**
- 08.00 pm** **Dinner « Salle de l'Oratoire » 6 rue Albert 1<sup>er</sup> La Rochelle**

**FEBRUARY 7, 2013 (Thursday)**

**SESSION 5 APPLICATIONS**

**Chairs: C. Sarno, Thales Avionics / M. Massiot, EGIDE**

- 09.00 am**                    **Analysis of Thermal Management Techniques in Tablets**  
**E. Rahim**, Electronic Cooling Solutions (United States)
- 09.25 am**                    **Autonomous Cooling for Embedded Computer –New Concept**  
**B. Bellin**, Thales Avionics (France)
- 09.50 am**                    **Thermal Management of a 49W Computer Processing Unit with a 23W Hotspot**  
**J. Carcone**, Airbus Opérations SAS (France)
- 10.15 am**                    **Loop Heat Pipe for the Thermal Management of Hot Spots in Future Electronic Equipments**  
**R. Hodot**, Thales Avionics (France)

**10.40 am – 11.15 am**                    **POSTER SESSION / TABLE TOP EXHIBITION**

**SESSION 6 MATERIALS**

**Chairs: D.Saums DS&A LLC / B.WIECEK Technical University of Lodz**

- 11.15 am**                    **Thermal Properties of Carbon Material Reinforced Aluminium Composite Fabricated by Hot Pressing with Semi-Liquid Existent Phase**  
**H. Kurita**, ICMCB-CNRS (France)
- 11.40 am**                    **Copper/Diamond Composite Materials for Thermal Management Applications**  
**T. Guillemet**, ICMCB-CNRS,(France)
- 12.05 am**                    **Thermally Conductive Encapsulants –Balancing Critical Properties**  
**P. Hough**, Lord Corporation (Germany)

**12.30 pm – 2.00 pm**                    **Lunch**

**SESSION 7 MATERIALS FOR HARSH ENVIRONMENT**

**Chairs: R. Seddon, Inasmet Tecnalìa / J.L Diot, Novapack SAS**

- 02.00 pm**                    **Silicon Nitride Substrates for Power Electronics**  
**U. Voeller**, Curamik Electronics GmbH (Germany)
- 02.25 pm**                    **MEMPHIS: Miniaturized Electronic Module for Power and Hermetic Innovative Applications In harSh Environment**  
**D. Baudet, B. Braux** Astrium (France)

**SESSION 8 MODELING**

**Chairs: R. Seddon, Inasmet Tecnalìa / J.L Diot, Novapack SAS**

- 02.50 pm**                    **Parametric Transient Thermo-Electrical PSPICE-Model for a Power Cable**  
**R. Schacht**, Fraunhofer ENAS (Germany)
- 03.15 pm**                    **Cooling Device Libraries Development for Surrogate Models in Modelica and VDHL-AMS Languages**  
**D. Lossouarn**, EPSILON (France)
- 03.40 pm**                    **End of session / Final Coffee / Departure**

**NEXT 2013 EVENT :**

*EMPC 2013, September 9 -12 Grenoble, France*

# REGISTRATION FORM ATW THERMAL MANAGEMENT

Early Registration ends January 11, 2013  
Final Registration ends on January 31, 2013

## RETURN REGISTRATION FORM ADDRESS:

INTERCONEX Florence Vireton 49 rue Lamartine 78035 Versailles France tel. +33 (0) 1 39 67 17 73  
fax +33 (0) 1 39 02 71 93 e-mail : [imaps.france@imapsfrance.org](mailto:imaps.france@imapsfrance.org) Web site: [www.imapsfrance.org](http://www.imapsfrance.org)

**WORKSHOP FEES:** These fees include: Hotel for 2 nights (arrival on Tuesday), lunches and dinners for 2 days.

<input type="checkbox"/> SPEAKERS	520 VAT excluded (621,92 € VAT)
<input type="checkbox"/> CHAIRS/TECHNICAL COMMITTEE	520 VAT excluded (621,92 € VAT)
<input type="checkbox"/> Please confirm your participation for first day dinner February 5 ) at 8 pm	

## CONFERENCE ATTENDEES 2 DAYS

### Before January 11, 2013

- |   |                     |                      |
|---|---------------------|----------------------|
| <input type="checkbox"/> IMAPS MEMBER (.....) | 590 VAT €* excluded | 705,64 €VAT included |
| <input type="checkbox"/> IMAPS NON MEMBER     | 680 VAT €* excluded | 813,28 €VAT included |

### After January 11, 2013

- |   |                    |                      |
|---|--------------------|----------------------|
| <input type="checkbox"/> IMAPS MEMBER (.....) | 660 €VAT* excluded | 789,36 €VAT included |
| <input type="checkbox"/> IMAPS NON MEMBER     | 760 €VAT* excluded | 908,96 €VAT included |
- Please confirm your participation for first day dinner (February 5, 2013)-dinner at 8 pm
- Vegetarian Food

## TOTAL FEES

**VAT included :** .....€ \*No refund in case of cancellation.  
\*For foreign companies, VAT will not be charged. VAT excluded .....€

**PAYMENT:** By bank transfer or by cheque to the order of INTERCONEX, cash. Credit card accepted.

## INTERCONEX BANK REFERENCES

<b>BANK CODE</b> 30004	<b>AGENCY CODE</b> 00859	<b>ACCOUNT NUMBER</b> 00010022786	<b>RIB KEY</b> 63	<b>BANK ADDRESS :</b> BNP PARIBAS VERSAILLES ET GX (00859) BIC BNPAFRPPVRS
IBAN FR 76 3000 4008 5900 0100 22 78 663 BNP PARIBAS Agency Versailles ETATS GENERAUX 36 rue des Etats Généraux 78002 Versailles France				

## ATTENDEE ADDRESS

NAME.....FIRST NAME.....

COMPANY/ORGANIZATION .....

YOUR VAT NUMBER.....

FUNCTION.....

ADDRESS.....

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Zip.....City.....Country.....

Phone.....Email.....

INVOICE ADDRESS (if different of above).....

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