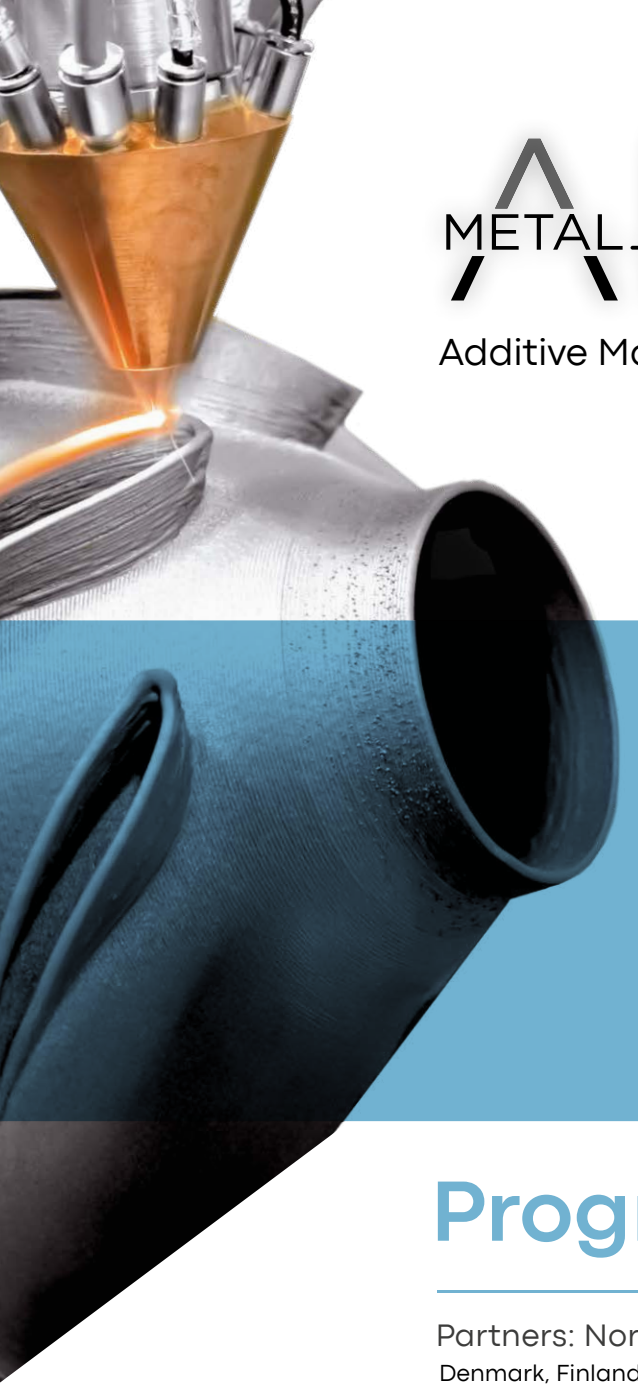

METAL AMS

Additive Manufacturing Synergy

3rd Edition

25 & 26 March 2026

Cetim Senlis France

Program

Partners: Nordic Countries

Denmark, Finland, Norway, Sweden

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A conference by Additive Manufacturing Synergy

METAL AMS

Additive Manufacturing Synergy

About

Welcome to the third edition of Metal AMS!

Metal AMS is France's first scientific symposium dedicated to Metal Additive Manufacturing (MAM). Organised by the French MAM synergy in collaboration with leading R&D partners worldwide, the symposium spans the entire metal AM value chain. It sends a clear national message to the international community: showcasing France's academic and industrial excellence and reaffirming our collective determination to accelerate the industrialization of metal AM.

In 2026, the Nordic countries: Denmark, Finland, Norway, and Sweden are our Partner Countries, opening new avenues for global collaboration and highlighting French AM know-how on the international stage.

The organisers may change this program if necessary.

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Angélique Preux	*Cetim*	Eric Charkaluk	*GIS HEAD CNRS, Ecole Polytechnique*
Aurélie Rousseau	*Cetim*	Nicolas Saintier	*Addimalliance, GIS HEAD CNRS, Arts et Métiers Institute of Technology*
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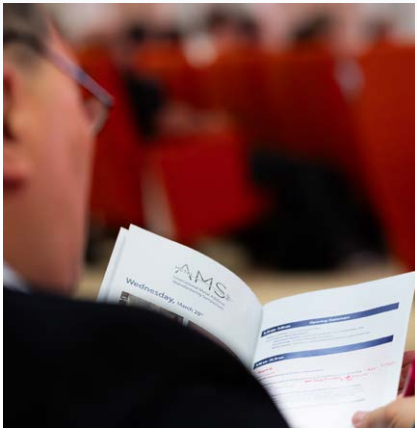
METAL AMS

Additive Manufacturing Synergy

Wednesday, March 25th



8.30 am - 9.00 am Opening Statement

Philippe Lubineau *Cetim Chief Research Officer*

French national Metal AM cohesion:
Xavier Boulnat *INSA Lyon*
Eric Charkaluk *GIS HEAD CNRS, Ecole Polytechnique*
Nicolas Saintier *Addimalliance, GIS HEAD CNRS, Arts et Métiers Institute of Technology*

9.00 am - 10.30 am

Room 6

S01-1 Guest keynotes
*Dorte Juul Jensen / Fabien Lefebvre

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Decoding laser-metal interaction using open-source powder bed fusion to create engineered microstructures
Venkata Karthik Nadimpalli
DTU, Lyngby, Denmark

102
Towards the unique performances by Additive Manufacturing
Juho Raukola
Wärtsilä, Vaasa, Finland

37
Towards a holistic computational framework for multiphysics and multiscale modelling of metal based additive manufacturing
Jesper Henri Hattel
DTU, Lyngby, Denmark

10.30 am - 11.15 am Coffee break

Wednesday, March 25th

11.15 am - 12.55 pm

Room 6

S02-1 Applications & qualifications

*Guillaume Badinier / Stian Gurrik

81

High-speed large-layer additive manufacturing: Bridging the gap between design freedom and serial production

Isaac Valls, Anwar Hamasaiid, Thibault Le Bourdiec

Rovalma SA, Barcelona, Spain

113

A novel delta qualification framework for multi-platform metal additive manufacturing of aerospace hardware

Stephen Anderson

Dyndrite Corporation, Seattle, USA

55

Qualification in metal additive manufacturing: Key factors and addup's technological contributions

Lucas Kautzmann

Fives AddUp, Cébazat, France

44

Manufacturing process and qualification of a functional addition using WAAM technology

David Plélan, Martin Garnier, Hervé Reynaud, Arthur Jamet, Laurent Jubin, Benoit Verquin

Cetim, Senlis, France

73

Industrialization of hybrid manufacturing cell, enabling full digital continuity, in-process monitoring, and dimensional control of large-scale WAAM parts

Elia Zgheib, Beatrice Rivalier, Philippe Verlet

VLM Robotics, Le Barp, France

Room 7

S07-1 Powder

*Stéphane Caubergh/ Quentin Gaillard

28

A comparison of the powder characteristics and mechanical properties of parts manufactured with powders from different powder batches

James Warner, Simon Ringer, Gwénaëlle Proust

The University of Sydney, Sydney, Australia

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The link between powder cohesiveness and spreadability evaluated through multi-layer analysis

Aurelien Neveu, Filip Francqui

Granutools, Awans, Belgium

10

From powder to part: Influence of virgin and recovered Inconel 625 powders on the DED-LP processability, microstructure and mechanical properties

Romain Deloffre[1,2], Lorène Heraud[2], Julie Lartigau[1]

[1]ESTIA-Recherche, Bidart, France. [2]I2M, Bordeaux, France

66

A method for qualifying model aluminum alloy powders for the LPBF process

Inès Crouzet[1], Patrice Peyre[1], Morgan Dal[1], Mathieu Soulier[2], Julien Favre[3], Claire Maurice[3]

[1]PIMM, CNRS UMR 8006, Paris, France. [2]Univ. Grenoble Alpes CEA, LITEN, DTNM, Grenoble, France. [3]LGF, Mines Saint-Étienne, UMR CNRS 5307, Saint-Étienne, France

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Influence of thermodynamic parameters on the oxidation kinetics of AMZ4 bulk metallic glass powder

Khansinee Longkaew, Laetitia Vieille, Olivier Valfort, Maelig Ollivier

SPIN Centre, CNRS, UMR 5307 LGF, École des Mines de Saint-Étienne, Saint-Etienne, France

Wednesday, March 25th

11.15 am - 12.55 pm

Room 8

S03-1 Materials & Characterization

*Jérémie Bouquerel / Lorène Heraud

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Origin of nanoscale triple-twinned martensite in an additively manufactured titanium alloy

Aijun Huang

Monash University, Melbourne, Australia

103

Improving additive manufacturing efficiency and performance through core-shell process parameter optimization in LPBF maraging steel

Vania Marisol Rodriguez Herrejon, Marcel Somers, Anton Ryberg, Venkata Karthik Nadimpalli

Technical University of Denmark, Kongens Lyngby 2800, Denmark

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Characterising inhomogeneity in mechanical properties of metal am parts using profilomety-based indentation plastometry

Thomas Southern

Plastometrex, Cambridge, United Kingdom

12

Study of the elaboration of martensitic stainless steel 13% Cr – 4% ni by laser metal deposition

Sarah Calmé[1,2], Pierre-François Giroux[1], Flore Villaret[3], Gaëlle Léopold-Jean-Marie[3], Jean-Philippe Couzinié[2], Pascal Aubry[1]

[1]Université Paris-Saclay, CEA, Service de Recherches en Matériaux et procédés Avancés, Gif-sur-Yvette, France. [2]Institut de Chimie et des Matériaux Paris-Est (ICMPE), CNRS UPEC UMR7182, Thiais, France. [3]EDF R&D, Département Matériaux et Mécanique des Composants (MMC), Les Renardières, Moret-sur-Loing, France

88

Comparative corrosion performance of additively and conventionally manufactured AISI 316L stainless steel in molten flinak salt at 700°C

Oliver Schollert[1], Mads Salbæk[1], Xenia Bredahl Gjelsten[2], Jayant Barode[1], Morten Jellesen[1], John Hald[1], Thomas Just Sørensen[2], Dorte Juul Jensen[1]

[1]DTU, Kongens Lyngby, Denmark. [2]University of Copenhagen, Copenhagen, Denmark

Room 9

S04-1 Simulation

*Patrice Peyre / Xavier Lorang

30

Finite element simulation of laser powder bed fusion process for large-scale aeronautical industrial component

Jean-Philippe Bournot[1], Nicolas Poletz[2,1], Romain Bergeron[3]

[1]Cenaero-France, Moissy-Cramayel, France. [2]Cenaero ASBL, Gosselies, Belgium. [3]Safran Additive Manufacturing Campus, Le Haillan, France

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A computationally efficient 3D process-structure-property modelling methodology for LB-PBF of 316L

Majid Kavousi[1,2], Patrick McGarry[1], Peter McHugh[1], Seán Leen[1,2]

[1]University of Galway, Galway, Ireland. [2]I-Form Advanced Manufacturing Research Centre, Galway, Ireland

65

An inherent strain method for the prediction of residual stresses in wire-laser additive manufacture: Comparison with a conventional transient thermomecanical analysis

Leo Silva[1], Stephen Cadiou[2], Bruno Levieil[1], Denis Carron[2], Cédric Doudard[1]

[1]IRDL, Brest, France. [2]IRDL, Lorient, France

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High-fidelity CFD–PF simulation of texture evolution in PBF-LB

Guanhong Chen Guanhong Chen[1,2], Xaowei Wang[3], Damien Tourret[4], Xinyu Yang[5], Jianming Gong[3], Seán Leen[1,2]

*[1]Mechanical Engineering, School of Engineering, College of Science and Engineering, University of Galway, Galway, Ireland. [2]I-Form, the SFI Research Centre for Advanced Manufacturing, University College Dublin, Dublin, Ireland. [3]Nanjing Tech University, Nanjing, China. [4]IMDEA Materials Institute, Getafe, Spain. 5Institute of High Performance Computing (IHPC), Agency for Science, Technology and Research (A*STAR), Singapore, Singapore*

77

Numerical study of process parameters and beam shapes effects on LPBF process stability

Morgan Dal[1], Patrice Peyre[2], Pierre Hebrard[2]

[1]ENSAM - PIMM, Paris, France. [2]CNRS - PIMM, Paris, France

Wednesday, March 25th

12.55 pm - 2.15 pm Lunch

1.45 pm Conference group photo

2.15 pm - 4.15 pm

Room 6

S01-2 Guests keynote

*Jesper Henri Hattel / Christophe Reynaud

16

Aeronautic Additive Manufacturing qualification of machines and part certification: Safran strategy

Hugo Sistach[1], Yann Danis[2], Stéphane Bensilum[3]

[1]Safran Aircraft Engines, Evry, France. [2]Safran Helicopter Engines, Tarnos, France. [3]Safran Additive Manufacturing Campus, Le Haillan, France

98

Enhancing performance of LPBF Zr-based metallic glass by porosity control

Camille Pauzon[1,2], Rémi Daudin[2], Pierre Lhuissier[2], Jean-Jacques Blandin[2]

[1]Chalmers University of Technology, Gothenburg, Sweden. [2]SIMaP Laboratory, Saint-Martin d'Hères, France

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A framework for efficient porosity analysis and process parameter optimization in powder bed fusion with laser beam of biodegradable alloys

Cole Jetton, Shashank Ramesh Babu, Jens Sjölund, Cecilia Persson

Uppsala University, Uppsala, Sweden

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The importance of microstructure quantification of metal AM samples

Dorte Juul Jensen

Technical University of Denmark, Kgs Lyngby, Denmark

4.15 pm - 5.00 pm Coffee break

5.00 pm - 6.40 pm

Room 6

S06-1 PBF-LB & Fatigue

*Hugo Roirand / Eric Charkaluk

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Fatigue strength assessment of alloys processed by L-PBF under multiaxial loadings: Impact of defects

Sai Penkulinti[1], Matthieu Bonneric[1], Nicolas Saintier[1], Benoit Verquin[2], Thierry Palin-Luc[1], Fabien Lefebvre[3], Pascal Ghys[4]

[1]Arts et Métiers Institute of Technology, Talence, France. [2]Cetim, Saint-Etienne, France. [3]Cetim, Senlis, France. [4]Alstom, Saint-Ouen, France

67

Understanding of the competition between fusion defects and surface roughness on the fatigue behavior of Inconel 718 obtained by Laser Powder Bed Fusion

Tarek Younsi

SAFRAN, Gonfreville l'Orcher, France

75

Influence of artificially seeded defects on the VHCF behavior of IN-718 fabricated by L-PBF under Nitrogen Shielding

Ali Rauf

KU Leuven, Gent, Belgium

80

Multiaxial high cycle fatigue of IN718 thin walls obtained by laser powder bed fusion

Badr Bouzid Souihli[1,2], Nicolas Saintier[1], Oana Ciobanu[3]

[1]I2M Arts & Métiers ParisTech, Bordeaux, France. [2]Safran, Le Haillan, France. [3]Safran, Bordeaux, France

50

Leading role of the sub-surface microstructure over the surface topography on the fatigue strength of stress-relieved L-PBF 316L parts

Marion Auffray[1,2], Franck Morel[1], Etienne Pessard[1], Linamaria Gallegos Mayorga[1], Thierry Baffie[3]

[1]Arts et Métiers institute of technology - LAMPA, Angers, France. [2]CEA Pays de la Loire, Bouguenais, France. [3]Univ. Grenoble Alpes – CEA LITEN, Grenoble, France

Room 7

S03-2 Materials & Characterization

*Camille Pauzon / Théo Warembourg

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A novel aluminium alloy developed for additive manufacturing with superior properties at elevated temperatures

Kai Zhang[1], Torbjørn Kamer-smits[2], Yanjun Li[2], Sarina Bao[1], Eivind Øvrelid[1]

[1]SINTEF, Trondheim, Norway. [2]NTNU, Trondheim, Norway

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Processability and microstructure of M2 tool steel produced by laser powder bed fusion

Fabrice Lion

IPC, Bellignat, France. INSA Lyon, Lyon, France. Ecam Lassale, Lyon, France

6

Effect of reusing unmelted Inconel® 625 powder from laser powder bed fusion onto the powder and end-products characteristics

Léandra Hereil[1,2], Véronique Gauthier-Brunet[1], Sylvain Dubois[1], Charlotte Metton[2], Carole Erny[2]

[1]Pprime Institut, Poitiers, France. [2]Naval Group, Ruelle sur Touvre, France

70

Effect of the deposition pattern on the microstructure for LPBF of duplex stainless steel

Victor Daniel Fachinotti, Sylvain Gouttebroze, Xiaobo Ren

SINTEF Industry, Oslo, Norway

83

Effect of hot isostatic pressing on the mechanical and microstructural properties of SS316L parts manufactured using extrusion-based metal additive manufacturing

Naveen Kumar Bankapalli, Prateek Saxena

Indian Institute of Technology Mandi, Mandi, India

Wednesday, March 25th

5.00 pm - 6.40 pm

Room 8

S05-1 Surface Treatments

*Vincent Bonnefoy / Pierre Auguste

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Post-processing of components manufactured by metal additive manufacturing: Integration of combined techniques and technological hybridization

Stéphane Guérin, Mathieu Mégemont, Antoine Gidon

Cetim, Saint-Etienne, France

17

AM Ti shrouded impeller with perfect internal channel

Frederic Bajard

Binc Industries, Saint-Priest, France

18

Electropolishing of LPBF parts in AlSi7Mg: Effects on roughness and dimensions of feature-based geometries

Adonis Vienet, Robin Kromer

Univ. Bordeaux, Bordeaux, France

84

Surface finishing methods and technologies adapted for micro and precise components made by 3D printing technologies

Martin Jay

POLITECHNO, Saint Cyprien, France

22

Microstructure modification and mechanical enhancement of additively manufactured nickel-free stainless steel via ultrasonic surface treatment

Mohammed Ali[1,2], Milad Zohrevand[3], Pentti Kalliotiura[1], Atte Antikainen[1], Auezhan Amanov[3], Tomi Lindroos[1], Elina Huttunen-Saarivirta[1]

[1]VTT Technical Research Centre of Finland Ltd, Tampere, Finland. [2]Steel Technology Department, Central Metallurgical Research and Development Institute, Cairo, Egypt. [3]Faculty of Engineering and Natural Sciences, Tampere University, Tampere, Finland

7.00 pm - 11.00 pm

Gala evening at La Grange de Montmartre, in Barbery

Room 9

S08-1 Process DED

*Antoine Kieffer / Nicolas Macallister

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On the behaviour of interfaces produced by multi-steels wire laser additive manufacturing

Sophie Badin[1], Arthur Despres[1], El Haddi Mechekour[2], Pierre-Thomas Doutre[2], Anthony Dellarre[2], Minh-Hien Bui[2], Marion Coffigniez[1]

[1]UGA, CNRS, Grenoble INP, SIMaP, Grenoble, France. [2]UGA, CNRS, Grenoble INP, G-SCOP, Grenoble, France

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DEDp and L-PBF additive manufacturing of TiC-reinforced Iron-based Metal Matrix Composites (IMMCs)

Samuel El Haddaoui[1], Christophe Colin[2], Zehoua Hamouche[1], Sylvain Dépinoy[2], Patrice Peyre[1]

[1]PIMM Laboratory, Arts et Métiers, CNRS, CNAM, Paris, France. [2]Centre des matériaux/Mines Paris, Université PSL, Versailles, France

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On the repair of large stainless steel parts from the energy sector with a robotized Direct Energy Deposition device

Norberto Jimenez[1], Yves Derrienic[2], Xavier Pitoiset[2], Pierre Durand[2], Cedric Georges[1]

[1]CRM Group, Liège, Belgium. [2]Westinghouse Electric Belgium, Nivelles, Belgium

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Meltio's industrial and reliable DED solutions as mature technology

Yannick Loisance[1], Francisco Gonzalez[2]

[1]Multistation SAS, Saint Malo, France. [2]Meltio 3D, Linares, Spain

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Understanding the hardness map of an as-fabricated thin wall made of chemically graded stainless steel by Direct Energy Deposition – Laser Based with powder

Matthie Bossy

MatéIS, UMR 5510, INSA-Lyon, Villeurbanne, France

Thursday, March 26th

8.30 am - 9.50 am

Room 6

S03-3 Materials & Characterization: Lattice

*Xavier Boulnat / Aijun Huang

85

Investigation of the dynamic behavior of TPMS structures in IN718 nickel-based superalloy

Pierre Mondelin[1], Éric Charkaluk[2], Julien Berthe[3], Cécile Davoine[4]

[1]École Polytechnique, Palaiseau, France. [2]CNRS, École Polytechnique, Palaiseau, France. [3]ONERA, The French Aerospace Lab, Lille, France. [4]ONERA, The French Aerospace Lab, Châtillon, France

45

Enabling next-generation compact heat exchangers through L-PBF of thin-walled 316L structures

Pauline Chanin Lambert[1], Quentin Gaillard[2], Lubin Combreas[1], Maxime Maurin[1,2], Florian Steinhilber[1], Alban Charton[1], Christophe Desrayaud[2]

[1]Wallace Technologies, Clermont Ferrand, France. [2]Ecole des Mines de St Etienne, Saint Etienne, France

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Influence of the laser strategies on the mechanical behaviour of additive manufactured Inconel TPMS

Paul Jabin Echeveste, Louise Le Barbenchon, Lorène Héraud, Philippe Viot

I2M, Bordeaux, France

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Characterization of porous metallic structures made by additive manufacturing for heat pipe applications

Vincent Kodio

CEA, Grenoble, France

9.50 am - 10.35 am Coffee break

Room 7

S09-1 NDT & Monitoring

*Cécile Davoine/ Nicolas Tardif

36

DED Laser Wire deposition real-time monitoring and control

Pierre Diaz[1], Aurélie Le Bris[2], Pierre Michaud[1], Valentin Peigne[1], Pierre Seze[1], Bernard Guillou[2], Emmanuel Caisso[3]

[1]Univ. Bordeaux, ESTIA Institute of Technology, Bidart, France. [2]ALSYMEX, Bordeaux Mérignac, France. [3]ALSYMEX, Villejuif, France

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In-situ process monitoring and machine learning-based diagnostic for wire laser additive manufacturing of 316L stainless steel: A small torture test case study

Robin Kromer

University of Bordeaux, Talence, France

72

In-situ characterisation of melt pool temperature in a commercial PBF-LB system

Sander Grønnerød, Nicolas Macallister, Kai Zhang, Sigrid Mellemseter, Vegard Brøtan

SINTEF AS, Trondheim, Norway

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Deep learning enhanced spatter trajectory analysis for in-situ monitoring of laser powder bed fusion

Gianni Pisa[1,2], Louis Blin[2], Cécile Davoine[2], Matthieu Schneider[1], Matthieu Degeiter[2], Armand Barbot[2]

[1]ENSAM, Paris, France. [2]ONERA, Châtillon, France

Thursday, March 26th

8.30 am - 9.50 am

Room 8

S10-1 Process AM-Sinter-based

*Aurélien Etiemble / Marion Coffigniez

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Progress in understanding sinter-based processes capabilities

Camille Colin[1], Anouk Michalon[2], Paul Calves[2], Quentin Charron[1]

[1]Cetim, Cluses, France. [2]Cetim, Saint Etienne, France

5

Production of inconel 718 superalloy parts by moldjet® technology

Matti Ben Moshe

Tritone Technologies, Tel-Aviv, Israel

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Towards process robustness in Metal Binder Jetting (MBJ): Understanding powder properties influence on printing step

Vincent Bonnefoy[2], Paul Calves[2], Christophe Reynaud[2], Mathieu Soulier[1], Laurent Guillem-Guerrero[1], Tanguy Obringer[1]

[1]Cetim, Saint-Etienne , France, [2]Univ. Grenoble Alpes, CEA-LITEN, Grenoble, France

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Digital mass productions with HP Metal Jet: Materials & Manufacturing Strategies Accelerators

Rocío Muñoz Moreno

HP, Barcelona, Spain

9.50 am - 10.35 am Coffee break

Room 9

S11-1 AM sustainability

*Stéphane Guerin / Christophe Grosjean

51

Life cycle assessment of pbf-lb process: Alloy-specific insights and process optimization

Hugo Roirand[1], Mathilde Jullienne[2], Noémie Boucherit[3]

[1]Cetim, Saint Etienne, France. [2]Cetim, Les Loges en Josas, France. [3]Cetim, Nantes, France

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Sustainable solutions for titanium supply in additive manufacturing

Kenan Boz

EPMA, Chantilly, France

34

Towards in-situ monitoring of environmental impact of WAAM: Evaluation of the reliability of life cycle assessment data

Sammy Wambugu[1,2], Laurent Terrenoir[1], Laura Laguna Salvado[1], Pierre Michaud[1], Olivier Kerbrat[2]

[1]ESTIA Institute of Technology, Bidart, France. [2]ENS Rennes, Rennes, France

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Data analysis and life cycle assessment approach to estimate the environmental performance of WAAM

Antoine Balidas[1,2,3], Olivier Kerbrat[1,2,3], Matthieu Rauch[4,5]

[1]Université de Rennes, Rennes, France. [2]ENS Rennes, Rennes, France. [3]Institut de Physique de Rennes, Rennes, France. [4]Nantes Université, Nantes, France. [5]Ecole Centrale Nantes, Nantes, France

Thursday, March 26th

10.35 am - 12.15 pm

Room 6

S08-2 Process DED

*David Plelan / Pierre Michaud

111

Simulation-driven representation of the additive friction stir deposition process: Development and validation of a multi-layer thermal model

Wlla Abbad, Vladislav Yakubov, Michail Karpenko, Gwénaëlle Proust, Anna Paradowska

The University of Sydney, Sydney, Australia. Heavy Engineering Research Association (HERA), Auckland, New Zealand

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Wire arc additive manufacturing of parts with direct programming: Some examples

Rodolphe Bolot[1], Alexandre Mathieu[1], Mohamed-Achraf Karoui[1], Ralph Seulin[1], Hichem Aberbache[1], Frédéric Bernard[2]

[1]Laboratoire Interdisciplinaire Carnot de Bourgogne, Le Creusot, France. [2]Laboratoire Interdisciplinaire Carnot de Bourgogne, Dijon, France

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Study of aluminium alloy 7075 produced by additive friction stir deposition: Implementation, microstructure, mechanical properties

Pierre Auguste, Arnold Mauduit

Cetim, Bourges, France

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Very high deposition rate additive manufacturing of low alloy steel parts with high impact energy thanks to fine acicular ferrite

Antoine Kieffer[1,2], Xavier Boulnat[2], Michel Perez[2], Corentin Chavignon[3], Alexandre Brosse[4], Flore Villaret[1]

[1]EDF, Orvanne, France. [2]INSA Lyon, Villeurbanne, France. [3]Framatome, Saint Marcel, France. [4]Framatome, Lyon, France

71

Fatigue resistance of 316L stainless steel cylindrical structures repaired using Cold Spray technology

Damien Artieres[1], Baris Telmen[2], Nathalie Isac[1], Thomas Girard[3], Fabien Szmytka[2], Eric Charkaluk[1]

[1]Laboratoire de Mécanique des Solides (LMS), Ecole Polytechnique, Institut Polytechnique de Paris, CNRS UMR 7649, Palaiseau, France. [2]IMSIA/UMR EDF/CNRS/ENSTA 9219, ENSTA Campus Paris Saclay, Institut Polytechnique de Paris, Palaiseau, France. [3]EDF-Lab Les Renardières, Matériaux et Mécanique des Composants (MMC), Moret-sur-Loing, France

Room 7

S12-1 Process PBF-LB

*Fabien Soubras / Arnold Mauduit

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Optimizing electromagnetic performance of L-PBF aluminium waveguides through surface roughness control

Olivier Poncelet[1], Victor Humbeeck[1], Quentin Gaillard[2], Arthur Verlinden[1], Geoffrey Roy[1], Dimitri Lederer[1], Benjamin Potelon[3], Christian Person[3], Aude Simar[1], Christophe Desrayaud[2]

[1]UCLouvain, Institute of Mechanics, Materials, and Civil Engineering (IMMC), Louvain-La-Neuve, Belgium. [2]Mines Saint-Etienne, LGF, UMR CNRS 5307, Saint-Etienne, France. [3]IMT Atlantique, Lab-STICC, UMR CNRS 6285, Brest, France

59

Effect of LPBF process parameters on the production of NiTi thin struts

Juan Delmastro, Nicolas Saintier, Lorène Heraud

ENSAM, Talence, France

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Achieving high-dimensional accuracy in net-shape PBF builds using a hybrid simulation and measurement-based approach

Simon Poly[1], Jeff Robertson[2]

[1]Hexagon Manufacturing Intelligence, Saclay, France. [2]Hexagon Manufacturing Intelligence, Detroit, USA

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Future of the nuclear industry: Development and industrialization of a 316L PBF-LB application

Théo Warembourg[1], Maxime Robert[2], Jaime Cuesta Aguirre[1]

[1]Nikon SLM Solutions, Ste-Foy-lès-Lyon, France. [2]Framatome , Romans-sur-Isère, France

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In situ inspection for additive manufacturing

Bernard Revaz

AMIQUAM SA, Gland, Switzerland

Thursday, March 26th

10.35 am - 12.15 pm

Room 8

S03-4 Materials & characterization

*Marie Fischer / Louise Le Barbenchon

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Corrosion fatigue behaviour of two LPBF 316L stainless steels

Xavier Majnoni d'Intignano[1], Charles Bianchetti[2], Olivier Devos[1], Mohamed El May[1], Sébastien Mercier[2], Nicolas Saintier[1]

[1]Arts et Metiers Institute of Technology, CNRS, Bordeaux INP, Hesam Universite, I2M, UMR 5295, TALENCE, France. [2]DMAS, ONERA—The French Aerospace Lab, Paris Saclay University, CHATILLON, France

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L-PBF manufacturing of Al10SiMg alloy using spatial beam shaping

Pierre Hebrard[1], Bassem Barkia[1], Ali Gokhan Demir[2], Leonardo Caprio[2], Emilie Leguen[3], Morgan Dal[1], Frederic Coste[1], Patrice Peyre[1]

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Aluminium Scandium alloys development for hydrogen applications

Hans-Wolfgang Seeliger[1], Benjamin Delignon[2]

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Microstructure and mechanical properties of a Co-free FeCrNiMn highentropy alloy produced by L-PBF

Jules L'Hostis[1,2], Quentin Gaillard[1], Mathieu Traversier[1], Audrey Tixier[2], Xavier Boulnat[2], Anna Fraczkiewicz[1]

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Effect of nano-oxide incorporation method on microstructure and mechanical properties of additive manufactured ODS Ni-based alloys

Pierre-Louis Ardizzone[1,2], Yann De Carlan[1], Louise Toualbi[2], Didier Locq[2], Thibaut Froeliger[2], Cécile Blanc[1], Pascal Aubry[1]

[1]CEA, Gif-sur-Yvette, France. [2]ONERA, Châtillon, France

Room 9

S13-1 Heat treatments

*Matthieu Bonneric / Matthieu Durand

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Influence of heat treatment on the impact toughness of a powder bed fusion laser beam manufactured 17-4 PH stainless steel

Renata de Oliveira Melo[1], Jean-Bernard Vogt[1], Eric Nivet[2], Flore Villaret[3], Christophe Grosjean[2], Eric Baustert[4], Nhu-Cuong Tran[3], Jérémie Bouquerel[1], Gang Ji[5]

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Heat treatment of 316LSi made by Wire Arc Additive Manufacturing for Nuclear Components

Nicolas Herve[1], Baptiste Durand[2], Nicolas Sallez[2], Bénédicte Gueraud[3], Julien Quere[1], Louis Lemarquis[2], Kamel Ettaieb[2], Océane Lambert[1], Xavier Gostiaux[4]

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Small-angle scattering characterization of the microstructure of an additively manufactured 316L and its evolution during heat treatment

Lorène Heraud[1], Nadhem Jallouli[1], Benoit Malard[2], Pierre Roblin[3], Nicolas Saintier[1]

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Heat treatment strategies for optimizing the mechanical performance of a novel AlSi10Cu8Mg Alloy processed by PBF-LB

Mohammadjavad Yadegari, Alessandra Martucci, Emilio Bassini, Alberta Aversa, Giulio Marchese, Elisa Padovano, Massimo Messori, Sara Biamino, Daniele Ugues, Federica Bondioli, Laura Montanaro, Paolo Fino, Mariangela Lombardi

Politecnico di Torino, Turin, Italy

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In situ Alloying of Ti-22Zr-11Nb-2Sn via Laser Powder Bed Fusion: Mechanical properties and heat treatment effects

Nolwenn Rincé[1,2], Camille Lavastre[1], Sandrine Geffroy[1], Denis Laillé[1], Philippe Castany[1], Thierry Gloriant[1]

[1]INSA Rennes, Rennes, France. [2]University of Rennes, Rennes, France

Thursday, March 26th

12.15 pm - 1.35 pm Lunch

1.35 pm - 1.50 pm Best poster award ceremony

1.50 pm - 3.05 pm

Room 6

S01-3 Guests keynote

*Flore Villaret / Christophe Reynaud

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Multi-laser Directed Energy Deposition system with integrated formation control for microstructure optimization

Nicolas Macallister, Sander Gronnerod, Morton Lind, Amund Ugelstad, Vegard Brotan

SINTEF, Trondheim, Norway

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Metal AM as Production Technology – Concerns, Perspective and Parts

Dagny Primdahl

Grundfos Holding A/S, Bjerringbro, Denmark

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AM-Standardization: Europe is shaping the future

Cyrielle Fournier, Alison Rosa

UNM, Courbevoie, France

3.05 pm - 3.50 pm Coffee break

5.50 pm - 6.05 pm Closing ceremony

3.50 pm - 5.50 pm

Room 6

S14-01 Industrial keynotes

*Nicolas Saintier / Benoit Verquin

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Advancing Additive Manufacturing: DNV's Updated Standards for Qualification and Digital Supply Chains

Stian Saltnes Gurrik

DNV, Oslo, Norway

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Quality Specification written by SNCF Voyageurs for different technologies of manufacturing

Frédéric Desgaches[1], Philippe Feraud[2], Laëtitia Kirschner[3]

[1]Rolling Stock Engineering Center, SNCF Voyageurs, LE MANS, France. [2]Railway Test Center, SNCF Voyageurs, Vitry Sur Seine, France. [3]Rolling Stock Engineering, Saint Denis, France

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Qualification activities for the PBF-LB/M process at Naval Group Angoulême-Ruelle: Upcoming serial production of parts

Charlotte Metton[1], Gwenaël Menard[2], Guillaume Ruckert[2]

[1]Naval Group, Ruelle sur Touvre, France. [2]Naval Group, Bouguenais, France

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ARQANE project – Towards a global approach for Additive Manufacturing (L-PBF) machine/process qualification for the nuclear industry

Guillaume Badinier[1], Didier Bardel[1], Gwenaël Menard[2], Alisson Benevent[2], Andréas Andriamanantena[3], Claire Ritter[4], Thierry Baffie[5], Olivier Hercher[4], Kevin Robles[6], Adrien Mouchard[2]

[1]Framatome, Lyon, France. [2]Naval Group, Bouguenais, France. [3]Inovsys, Marignane, France. [4]CEA, Saclay, France. [5]CEA, Grenoble, France. [6]Technicatome, Aix en Provence, France

Panel discussion - AM industrialization & qualification: GRUNDFOS, FRAMATOME

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An improved hot cracking criterion for the design of LPBF aluminium alloys

Belkacem Bouzouidja[1], Julien Favre[1], Patrice Peyre[2], Claire Maurice[1], William Goncalves[1], Morgan Dal[2]

[1]Laboratoire Georges Friedel, Saint-Etienne, France. [2]PIMM, Paris, France

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From surface roughness control to mechanical performance: Now contour parameters govern the tensile behaviour of 316L thin-walled structures built by L-PBF

Maxime Maurin[1,2], Quentin Gaillard[1], Pauline Chanin-Lambert[2], Florian Steinhilber[2], Christophe Desrayaud[1]

[1]Mines Saint-Etienne, LGF, Saint-Etienne, France. [2]Wallace Technologies, Saint-Etienne, France

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Combined experimental and numerical framework for additive manufacturing by SLM of bipolar plates optimized for PEMFCs

Mohamed Salah Braham

Université de Picardie Jules Verne (Laboratoire des Technologies Innovantes), Saint-Quentin, France

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Towards absolute temperature measurement in metal additive manufacturing: Calibration and emissivity correction of infrared cameras

Théo Chavatte[1], Marie-Marthe Groz[1], Pierre Joyot[2], Alain Sommier[1]

[1]I2M, Bordeaux, France. [2]ESTIA, Bidart, France

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Elaboration and characterization of 316 micro-struts produced by LPBF for lattice structures

Malo Mcilroy[1,2], Rémy Dendievel[2], Luc Salvo[2], Guillaume Cattaneo[1], Didier Bardel[1]

[1]FRAMATOME, Paris, France. [2]Laboratoire SIMaP-GPM2, Grenoble, France

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Geometrical effects on a novel hybrid material extrusion additive manufacturing process

Mohamad Rostom[1], Mahdi Chemkhi[1,2], Léa Le Joncour[1]

[1]University of Technology of Troyes (UTT), Troyes, France. [2]EPF school of engineering, Troyes, France

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Effect of hot isostatic pressing on the mechanical and microstructural properties of SS316L parts manufactured using extrusion-based metal additive manufacturing

Naveen Kumar Bankapalli, Prateek Saxena

Indian Institute Of Technology Mandi, Mandi, India

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Reliability based approach to evaluate the fatigue limit of as-built alsi10mg alloy

Cisse Ibrahim Kalil, Anour Nasr
LGM, paris, France

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Effect of oxygen on a metastable β titanium alloy for biomedical applications prepared by Laser Powder Bed Fusion

Camille Lavastre, Nolwenn Rincé, Sandrine Geffroy, Denis Laillé, Philippe Castany, Amélie Fillon, Thierry Gloriant
INSA Rennes, Rennes, France

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LPBF process monitoring software based on a causal chain of failures

Nicolas Muller, Christophe Tournier
ENS Paris-Saclay, Gif-sur-Yvette, France

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Parametric analysis of the material extrusion additive manufacturing of H13 tool steel

Mahmoud Naim[1,2], Mahdi Chemkhi[1,2], Delphine Auzene[3]
[1]EPF Ecole d'ingénieurs, Troyes, France. [2]Université de technologie de Troyes, Troyes, France. [3]CRITT Matériaux Innovation, Charleville-Mézières, France

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Downskin build strategy optimization in laser powder bed fusion of overhang inconel 718 alloy structures

Dmytro Lesyk[1,2], Silvia Martinez1, Aitzol Lamikiz[1]
[1]Aeronautics Advanced Manufacturing Center, University of the Basque Country (UPV/EHU), Zamudio, Spain. [2]National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Kyiv, Ukraine

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Recycling of waste-PCBs using additive manufacturing and powder metallurgy techniques

Jaydeep Vishwakarma
University of Lorraine, Nancy, France

Practical Information

Poster Exhibition

Cetim Entrance Hall
Discover the 2026 poster selection and vote for your best poster before 10.30 am, Thursday 26

Award Ceremony – Room 6
Thursday 26 at 1.35 pm

Pictures of the Congress

Conference group photo
Wednesday 25, 1.45 pm outside of Cetim *(main entrance)*

The photos taken during the congress will be available on metal-ams.com

During the congress, there are several shuttles between Cetim Senlis and the hotels nearby

Wednesday, March 25th

Morning shuttle from the Senlis hotels to Cetim
Details:

7.55 am	Departure from Escapade Best Western hotel
8.05 am	Departure from Campanile & Ibis hotels
8.15 am	Final stop at Cetim
6.50 pm	Departure from Cetim to the gala dinner venue (no stops at hotels)
11.00 pm	Shuttle from the gala venue to the hotels in Senlis with the final stop at Cetim

Thursday, March 26th

Morning shuttle from the Senlis hotels to Cetim
Details:

7.55 am	Departure from Escapade Best Western hotel
8.05 am	Departure from Campanile, Ibis and Ibis Budget
8.15 am	Final stop at Cetim
6.15 pm	Shuttle from Cetim to Roissy Charles de Gaulle airport

Please show up 5 minutes before the announced time. The bus may be a few minutes late depending on the traffic.

Book your Taxi

Hostesses are available to book your taxis.
Please submit your request before 1.30 pm (Thursday 26)

Free and Unlimited WiFi Access

Connect to the "Cetim-Public" network

Gala evening at La Grange de Montmartre, in Barbery

Wednesday, March 25th

7.00 pm - 11.00 pm
Social Event Gala evening in Barbery

11.00 pm
Shuttle from the gala venue to the hotels in Senlis with the final stop at Cetim

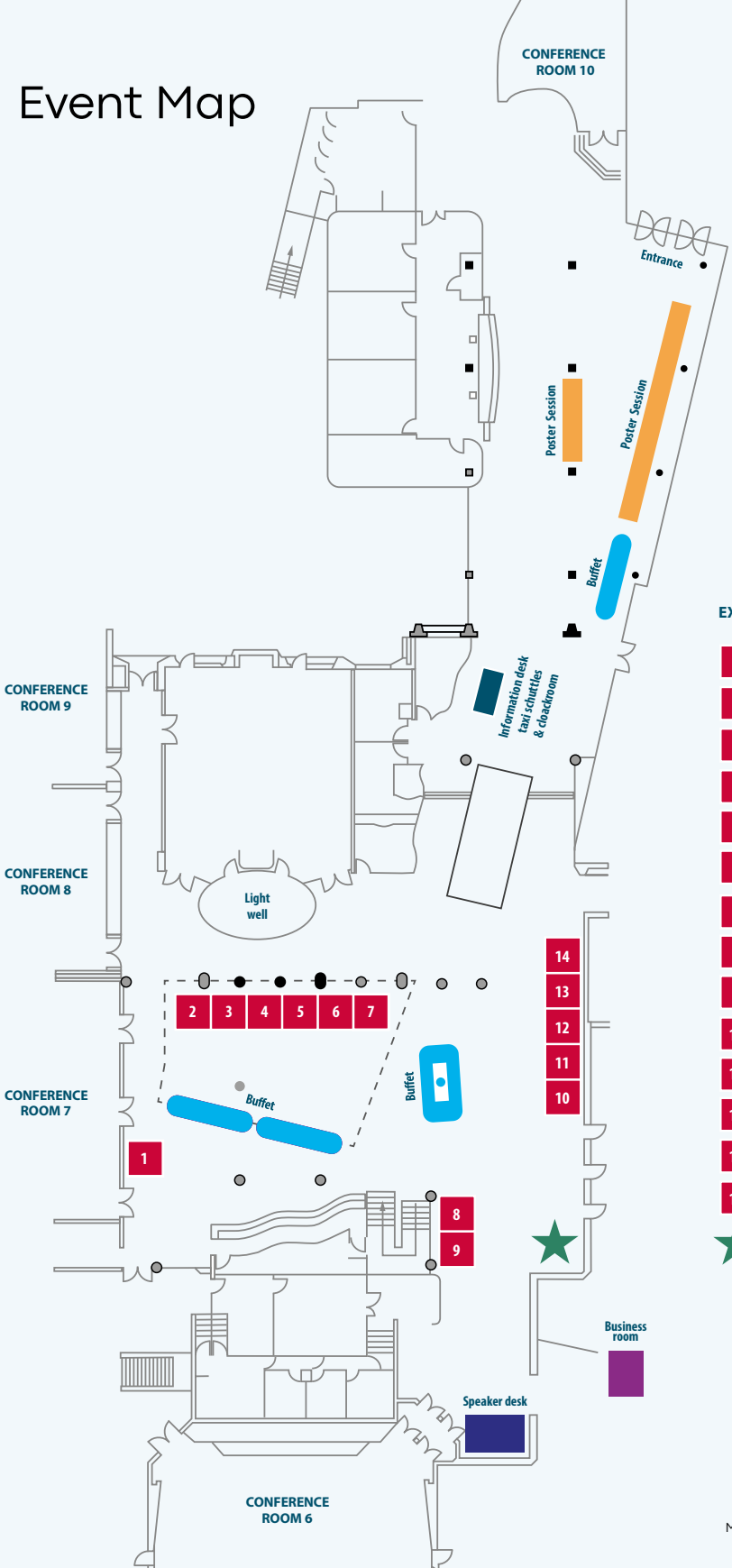
Business Room

A business room is available in free access if you need a quiet space to work. You can find it in front of the conference room 6.

Speaker Desk

If you are a speaker and have a question or if you need to provide us with your updated presentation (on USB key), reach the speaker desk.
It is located next to the conference room 6.

Event Map



EXHIBITORS:

1. EPMA
2. VOLUM-e
3. Binc
4. Filab
5. Granutools
6. Incus
7. FIVES ADDUP
8. UNM
9. Cetim
10. HEXAGON
11. ERM Fab&Test
12. Multistation - Meltio
13. Schaeffler Special Machinery
14. Erpro Group

★ Nikon SLM's demonstrator

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Senlis

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60300 Senlis - France

Access
25 km drive from the Paris Charles-de-Gaulle airport,
direct access through the A1 highway, exit 8

Contact
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Information & Registration
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