Oral, Poster contribution

Original contributions on thermal spraying and recent developments on suspension thermal spraying are accepted. We mainly expect contributions devoted to the analysis of spray processes, sprayed coatings characterizations (microstructural, optical, mechanical, physical, chemical...) and on recent methods such as suspension spray and cold spray. The papers related to post spray treatments are welcome. Environmental and energetic aspects of thermal spraying will be particularly of interest during this 6th edition. Additionally, the contributions related to the coatings applications and their functional properties are kindly invited.

Industrial exhibitions

Thermal Spraying
(process, diagnostics...)
Materials for Spray
(powders, precursor...)
Characterization of the deposits
(mechanical tests, porosity...)

For more information ask

Lech PAWLOWSKI
University of Limoges
SPCTS, Centre Européen de la Céramique
12 rue Atlantis
87068 LIMOGES CEDEX - FRANCE
Tel. (+33) 587 50 24 12
lech.pawlowski@unilim.fr

Location

Centre Européen de la Céramique (CEC)
12 rue Atlantis
87068 Limoges CEDEX - FRANCE

Third Announcement

6th RIPT
Les Rencontres Internationales sur la Projection Thermique

October 31, 2013

PAYMENT OF PARTICIPATION FEE

Fee

1 day (with the choice) or 3 days:
NON ETSA
Students: 60 € / 130 €
Academics: 180 € / 350 €
Industrialists: 210 € / 400 €
Exhibitors: 500 €
Gala dinner: 50 €

ETSA members
Students: 40 € / 100 €
Academics: 140 € / 300 €
Industrialists: 160 € / 350 €
Exhibitors: 450 €
Gala dinner: 40 €

Account

Please use the following account to pay the participation in 6RIPT:
IBAN: FR76 1007 1870 0000 0010 0008 842
BIC: TRPUFRP1
Bank: Trésor Public
Account’s address:
M. l’Agent Comptable
Université de Limoges
33 Rue François Mitterrand
BP 23204
87032 Limoges Cedex, France

Please note on bank transfer Participation in 6RIPT

LIMOGES 2013

11th to 13th December
6th RIPT LIMOGES - 2013

Scientific Committee

Topics
1) Materials for spraying: powders, suspensions, wires, rods
2) Spray processes and coatings
3) Cold gas spray method
4) Solution and suspension spraying
5) Post spray treatment
6) Modeling and process diagnostics
7) Characterization of coatings
8) Functional and nanostructural coatings
9) Biomaterials
10) Applications of coatings

Organizing Committee

Papers

The presented papers can be submitted for publication in the special issue of *Surface and Coatings Technology* (Elsevier) with the impact factor 2012, IF=1.94. The special issue editors are Robert VASSEN and Lech PAWLOWSKI. The details of manuscripts preparation can be found on: www.elsevier.com/locate/surfcoat

General Information

Oral, Poster contribution

Original contributions in the field of thermal spraying and, in particular, recent developments on suspension for thermal spraying have been accepted.

114 presentations will be given:
• 3 plenary lectures,
• 19 invited papers initiating each session,
• 65 oral presentations,
• 27 posters.

European Thermal Spray Association meeting will have place on 11 December during the first day of 6RIPT

ETS A

6RIPT news on the website

http://www.unilim.fr/ript
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIANCHI Luc Dr.</td>
<td>CEA</td>
<td>TOURS, FRANCE</td>
</tr>
<tr>
<td>BERGER Michael Dr.</td>
<td>FRAUNHOFER INSTITUTE</td>
<td>DRESDEN, GERMANY</td>
</tr>
<tr>
<td>CANNILLO Valeria Prof.</td>
<td>UNIVERSITY OF MODENA</td>
<td>MODENA, ITALY</td>
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<tr>
<td>CHICOT Didier Prof.</td>
<td>UNIVERSITY OF LILLE 1</td>
<td>LILLE, FRANCE</td>
</tr>
<tr>
<td>DOSTA Sergi Dr.</td>
<td>UNIVERSITY OF BARCELONA</td>
<td>BARCELONA, SPAIN</td>
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<tr>
<td>FAUCHAIS Pierre Prof.</td>
<td>UNIVERSITY OF LIMOGES</td>
<td>LIMOGES, FRANCE</td>
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<tr>
<td>HÖHLE Michael Dr. / GINDRA Malko Dr.</td>
<td>SULZER METCO</td>
<td>WOHLLEN, SWITZERLAND</td>
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<tr>
<td>GADOW Rainer Prof. / KILLINGER Andreas Priv.-Doz.</td>
<td>UNIVERSITY OF STUTTGART</td>
<td>STUTTGART, GERMANY</td>
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<tr>
<td>GRUND Thomas Dr.</td>
<td>CHEMNITZ UNIVERSITY OF TECHNOLOGY</td>
<td>CHEMNITZ, GERMANY</td>
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<td>KLASSEN Thomas Prof.</td>
<td>UNIVERSITY OF HAMBURG</td>
<td>HAMBURG, GERMANY</td>
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<tr>
<td>KURODA Seiji Prof. / ITO Kaita Dr.</td>
<td>NIMS / UNIVERSITY OF TOKYO</td>
<td>TSUKUBA / TOKYO, JAPAN</td>
</tr>
<tr>
<td>LIMA Carlos Prof.</td>
<td>METHODIST UNIVERSITY OF PIRACICABA</td>
<td>SAO PAULO, BRESIL</td>
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<tr>
<td>LUSVARGHI Luca Dr.</td>
<td>UNIVERSITY OF MODENA</td>
<td>MODENA, ITALY</td>
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<td>MAUER Georg Dr.</td>
<td>FORSCHUNGSZENTRUM JÜLICH</td>
<td>JÜLICH, GERMANY</td>
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<tr>
<td>MONTAVON Ghislain Prof.</td>
<td>UNIVERSITY OF BELFORT MONTBÉLIARD</td>
<td>BELFORT, FRANCE</td>
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<td>NYLEN Per Prof.</td>
<td>UNIVERSITY OF TROLLHÄTTAN</td>
<td>TROLLHÄTTAN, SWEDEN</td>
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<td>SANCHEZ Enrique Prof.</td>
<td>INSTITUTE OF CERAMIC TECHNOLOGY</td>
<td>CASTELLON, SPAIN</td>
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<td>SMUROV Igor Prof.</td>
<td>ENISE</td>
<td>SAINT ETIENNE, FRANCE</td>
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<td>VARDELLE Armelle Prof.</td>
<td>UNIVERSITY OF LIMOGES</td>
<td>LIMOGES, FRANCE</td>
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<td>VASSEN Robert Prof.</td>
<td>FORSCHUNGSZENTRUM JÜLICH</td>
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<td>VUORISTO Petri Prof.</td>
<td>TECHNICAL UNIVERSITY OF TAMPERE</td>
<td>TAMPERE, FINLAND</td>
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<tr>
<td>WIELAGE Bernhard Prof. / LAMPKE Thomas Prof.</td>
<td>TECHNICAL UNIVERSITY OF CHEMNITZ</td>
<td>CHEMNITZ, GERMANY</td>
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</tbody>
</table>
First day: Wednesday, December 11

Salle TD 4
9h00-12h00
Meeting of ETSA Board of Directors

AMPHI 4
10h00
Open lecture of Prof. Rainer Gadow from IFKB in Germany
“Bioceramic coatings and composites from materials and processes to medical applications”

ENTRY HALL
14h00-18h30
Registration and installation of industrial exposition.
Installation of posters.
16h00-18h00
Visit of the laboratories

CITY HALL OF LIMOGES
18h30-21h00
Welcome cocktail given by municipality of Limoges

INSRIPTION FORMULAR
6th RIPT
Limoges 2013

Please complete and return the reply form below.

PLEASE PRINT OR TYPE

Title (Prof, Dr, Mr, Ms)
__________________________________________________________________________
Family Name
__________________________________________________________________________
First Name
__________________________________________________________________________
Job Title
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Organization
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Address
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Post Code
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Email
__________________________________________________________________________

Please, note total sum paid: __________ €

Send an E-mail to:

Lech Pawlowski
University of Limoges
SPCTS, Centre Européen de la Céramique
12 rue Atlantis
87068 LIMOGES Cedex - FRANCE
Tel. (+33) 587 50 24 12
Email: lech.pawlowski@unilim.fr
### Program of 6th RIPT - Thursday, December 12

#### Amphitheater 4

**Spray process – session 1**  
Chairman: Lech Pawlowski  
- 9h00 Comprehensive development of thermal spray concepts  
  Prof. Bernhard Wielage / Prof. Thomas Lampke – Technical University of Chemnitz (Germany)  
- 9h30 Ultra high pressure HVOF gun fueled with ethanol for carbides spraying  
  Frantisek Zahalka  
- 9h50 Interface reaction mechanism for Al coating sealed with thermal diffusion of Zn  
  Timing Zhang  
- 10h10 Technological Developments in Nozzle Design for Twin Wire Arc Spraying to Improve the Variety of Application  
  Leif Gereon Hagen

#### Cold spray – session 1

**Chairman:** Thomas Klassen  
- 9h00 Cold Spraying: From process fundamentals towards advanced applications  
  Prof. Igor Smurov – ENISE (France)  
- 9h30 Investigation on the Effect of Addition of Ni$_3$Al Particulates on the Mechanical Properties of Cold Sprayed Nickel  
  Tharaka Chandanayaka  
- 9h50 The effect of substrate preparation on the mechanical properties of coatings deposited by low-pressure cold spraying  
  Pawel Sokolowski  
- 10h10 Oxidation performance of cold sprayed Ti-Al barriers on γ-TiAl intermetallic substrates  
  Jan Cizek

#### Applications of coatings – session 1

**Chairman:** Bernhard Wielage  
- 9h00 Bioglass, bioceramic and composite coatings for biomedical applications  
  Prof. Valeria Cannillo – University of Modena (Italy)  
- 9h30 Investigation of HVOF-Sprayed Hardmetal Coatings for Static Friction Applications  
  Lutz-Michael Berger  
- 9h50 Steel coating application for engine block bores by Plasma Transferred Wire Arc spraying process  
  Geofrey Darut  
- 10h10 Recent Developments in High Velocity Suspension Flame Spraying and Industrial Applications  
  Priv.-Doz. Andreas Killinger / Prof. Rainer Gadow – University of Stuttgart (Germany)

#### Nanotechnology – session 1

**Chairwoman:** Armelle Vardelle  
- 11h20 Novel Opportunities for Thermal Spray by PS-PVD  
  Dr. Georg Mauer – Forschungszentrum Jülich (Germany)  
- 11h50 Helium Substitution in liquid feedstock plasma spraying  
  Aurélien Joulia  
- 12h10 On Experiments with Liquid Feedstock Spraying with Water Stabilized Plasma Torch  
  Radek Musialek  
- 12h30 Role of suspension processing in the preparation of nano/submicron structured feedstocks for plasma spraying  
  Prof. Enrique Sánchez – Institute of Ceramic Technology (Spain)

#### Cold spray – session 2

**Chairman:** Sergi Dosta  
- 11h20 On Adhesion Mechanisms of Cold Gas Sprayed Aluminium Coatings on Al2O3-Substrates  
  Dr. Thomas Grand – Chemnitz University of Technology (Germany)  
- 11h50 Effect of axial carrier gas on particle velocity in cold spraying  
  Xinkun Suo  
- 12h10 Effect of Preheating Treatment on the Deposition Mechanism of Cold Sprayed Copper Particles  
  Shuo Yin  
- 12h30 A study on the microstructure and tribological behavior of cold-sprayed metal matrix composites reinforced by particulate quasicrystal  
  Xueping Guo

#### Applications of coatings – session 2

**Chairman:** Carlos Lima  
- 11h20 Developing alternative coatings for repair and restoration of pumps of caustic liquor transportation in the aluminum and nickel industry  
  Prof. Carlos Lima – Methodist University of Piracicaba (Brazil)  
- 11h50 Thermally Sprayed Finestructured WC-12Co Coatings Finished by Ball Burnishing and Grinding as an Innovative Approach to Protect Forming Tools Against Wear  
  Peter Hollingsworth  
- 12h10 Bioactivity and Mechanical Properties of Bioactive Glass Coatings Fabricated by Flame Spraying  
  Monica Monsalve  
- 12h30 Characterization of microstructure and thermal properties of YCSZ coatings obtained by suspension plasma spraying  
  Pawel Sokolowski

#### Coffee break

10h40 – 11h20

#### Salle TD 3

**Applications of coatings – session 1**  
Chairman: Carlos Lima  
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  Pawel Sokolowski

13h00 – 15h00  **LUNCH**
### Program of 6th RIPT - Thursday, December 12 (also next page)

#### Amphitheater 4

**Mechanical properties – session 1**  
Chairman: Eli Puchi Cabrera

- **15h30** Mechanical properties by indentation of thermal sprayed coatings: Relevance of the scale of measurement.  
  **Prof. Béatrice Chistot** – University of Lille 1 (France)
- **16h00** Microstructure and sliding wear resistances of as-deposited and annealed high carbon steel coatings obtained by flame spraying.  
  **Abdelaziz Ati**
- **16h20** Microstructure and Tribology of WC-FeCrAl Cermets Deposited by HVOF- and HVAF-Spraying.  
  **Giovanni Bolelli**
- **16h40** Residual stresses and final deformation of an alumina coating: modeling and measurement.  
  **Rodolphe Bolot**
- **17h00** Integrated formation of high performance turbine blade model by SLM and APS technology.  
  **Zhenhua Cai**
- **17h20** Comparative study of the microstructure, microhardness, corrosion, wear and thermal shock resistance of ZrO$_2$-Y$_2$O$_3$, ZrO$_2$-CeO$_2$ and ZrO$_2$-Al$_2$O$_3$ coatings elaborated by atmospheric plasma spraying.  
  **Andres G. Gonzalez**

#### Coatings properties – session 1

Chairman: Petri Vuoristo

- **15h30** Design of Microstructures in Thermal Barrier Coatings.  
  **Prof. Per Nylen** – University of Trollhättan (Sweden)
- **16h00** High temperature oxidation of MCrAlY coatings modified by Al$_2$O$_3$ PVD overlay.  
  **Cécilia Bartuli**
- **16h20** Deposition and Characterization of Thermal Barrier Coatings of ZrO$_2$-4 mol. % Y$_2$O$_3$-1 mol. % Gd$_2$O$_3$-1 mol. % Yb$_2$O$_3$.  
  **Lidong Zhao**
- **16h40** Effect of sealing processing and treatment on the behavior of plasma-sprayed ceramic alumina coating in extreme environment.  
  **Angélique Canton**
- **17h00** Improving surface properties of Mg alloys by cold spray Aluminum based coatings.  
  **Juliana Bedoya**
- **17h20** Investigation of the adherence between enamel coating and base metal by fractal analysis.  
  **Tao Han**

#### Modelling – session 1

Chairman: Luca Lusvarghi

- **16h40** Investigations and 3D representations of Atmospheric and Suspension Plasma Spraying coatings microstructure.  
  **J. Marthe**
- **17h00** Finite element modeling of cracking phenomenon on the interfaces of thermal barrier coatings system as a function of the TGO growth.  
  **Joseph Absi**
- **17h20** Computer-aided trajectory generation strategy and computational thermal history in thermal spraying.  
  **Zhenhua Cai**

#### Applications of coatings – session 3

Chairman: Thomas Lampke

- **15h30** Manufacture of gadolinium zirconate as thermal barrier coating using different types of APS guns.  
  **Prof. Robert Vassen** – Forschungszentrum Jülich (Germany)
- **16h00** Co-plasma spraying of NiCrAlY powder and alumina suspension for anti-wear applications.  
  **Alice Ravaux**
- **16h20** The Use of Detonation Spraying for the Development of Catalytic Converters.  
  **Igor Smurov**

#### Modelling – session 2

Chairman: Ghislain Montavon

- **17h50** The usefulness of mathematical models in plasma spraying engineering.  
  **Prof. Armelle Vardelle** – University of Limoges (France)
- **18h20** Modeling of radiative exchanges between plasma jet and colloidal droplets in Suspension Plasma Spray.  
  **Florent Girard**
- **18h40** Comparison between Two-Dimensional and Three-Dimensional Models on Plasma Torch Simulations.  
  **Zhiwei Guo**

#### Mechanical properties – session 2

Chairman: Andreas Killinger

- **17h50** Comparison of mechanical and electrochemical properties of WC-17 and 12Co coatings onto Al7075-T6 obtained by HVOF and CGS.  
  **Dr. Sergi Dosta** – University of Barcelona (Spain)
- **18h20** Effect of cold sprayed Al coating on mechanical property and corrosion behavior of friction stir welded 2024-T351 joint.  
  **Wenya Li**
- **18h40** Drilling resistance test as a method to determine mechanical properties of Al$_2$O$_3$-TiO$_2$ plasma spray coatings.  
  **Claudia Constanza Palacio**

#### Coatings properties – session 2

Chairman: Pierre Fauchais

- **17h50** Properties and performance of coatings deposited by laser cladding and thermal spray technologies - a direct comparison of the deposition technologies.  
  **Prof. Petri Vuoristo** – Technical University of Tampere (Finland)
- **18h20** Properties of NiCrBSi coating, as sprayed and remelted by different technologies.  
  **Šárka Houdková**
- **18h40** Fireside corrosion performance of FeCrAl coating at 700, 750 & 800 °C in simulated coal-biomass combustion environment for USC boilers.  
  **Tanvir Hussain**

#### Modelling – session 2

Chairman: Ghislain Montavon

- **17h50** The usefulness of mathematical models in plasma spraying engineering.  
  **Prof. Armelle Vardelle** – University of Limoges (France)
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  **Zhiwei Guo**

19h10 Poster session at the lower ground floor (RB) of Platforms in CEC building

20h00 Gala dinner in “Le Poudrier”
### Amphitheater 4

**15h00: Plenary lecture:** Prof. Thomas Klassen, Optimum Parameters for Cold Spraying

### Salle TD 4

**Spray process – session 2**  
Chairman: Jan Cizek

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>15h30</td>
<td>Sprayability of Ceramic Substrates by Thermal Spraying.</td>
<td>Filoftea Laura Toma</td>
</tr>
<tr>
<td>16h00</td>
<td>Grain Growth and Pore Elimination in Inconel 625 Deposited by APS</td>
<td>Fardad Azarmi</td>
</tr>
<tr>
<td>16h20</td>
<td>UHTC by plasma spraying: use of an innovative way to include SiC in coatings.</td>
<td>Charlotte Barré</td>
</tr>
<tr>
<td>16h40</td>
<td>Development of oxide-dispersion-strengthened CoNiCrAlY Bondcoats.</td>
<td>Francesco Bozza</td>
</tr>
<tr>
<td>17h00</td>
<td>MCrAlY and ZrO₂ coatings on Ti-6Al-4V using a non-transferred arc plasma torch with reverse vortex.</td>
<td>Felipe Rocha Caliari</td>
</tr>
<tr>
<td>17h20</td>
<td>The Role of Substrate Surface Roughness on Adhesion Properties of APS and HVOF Sprayed Nickel Coatings.</td>
<td>Ladislav Celko</td>
</tr>
</tbody>
</table>

**17h40 – 17h50**  
Coffee break

### Spray process – session 3

Chairman: Igor Smurov

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>17h50</td>
<td>Effect of Bond Coat Surface Roughness on the Structure of Axial Suspension Plasma Spray Thermal Barrier Coatings.</td>
<td>Nicholas Curry</td>
</tr>
<tr>
<td>18h20</td>
<td>Microstructure and wear resistance of FeAl/Al₂O₃ intermetallic composite coating prepared by atmospheric plasma spraying.</td>
<td>Bo Song</td>
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</tbody>
</table>

**19h10**  
Poster session at the lower ground floor (RB) of Platforms in CEC building

**20h00**  
Gala dinner in “Le Poudrier”
## Program of 6th RIPT - Friday, December 13

### Amphitheater 4

**Mechanical properties – session 3**  
Chairman: Enrique Sánchez

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>9h00</td>
<td>Tribological Properties of Thermally Spray Coatings. Dr. Luca Lusvarghi – University of Modena (Italy)</td>
</tr>
<tr>
<td>9h30</td>
<td>Tribo-corrosion behaviour of chromium carbide based coatings deposited by HVOF. R. Pileggi</td>
</tr>
<tr>
<td>9h50</td>
<td>Microstructure and Tribological Properties of Plasma Sprayed Nanostructured and Conventional Alumina-Titania Coatings. Wojciech Zorawski</td>
</tr>
<tr>
<td>10h10</td>
<td>Understanding the mechanisms produced during rotary drilling test of ceramic thermal spray coatings. An alternative to determine the mechanical resistance of these coatings. Fabio Vargas</td>
</tr>
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</table>

### Amphitheater 3

**Coatings properties – session 3**  
Chairman: Per Nylen

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>9h00</td>
<td>Suspension Plasma Spraying to reach enhanced coating properties. Dr. Luc Bianchi – CEA (France)</td>
</tr>
<tr>
<td>9h30</td>
<td>The effect of samarium oxide on electrical conductivity of plasma sprayed SOFC anode. S.N. Panahi</td>
</tr>
<tr>
<td>9h50</td>
<td>Optical properties of Al2O3 cermets obtained by plasma spraying: role of composition and microstructure. Denis Toru</td>
</tr>
<tr>
<td>10h10</td>
<td>Effect of material combination of matrix and reinforcement on characterization of cold sprayed composite coatings. Min Yu</td>
</tr>
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### Salle TD 3

**Modelling – session 3**  
Chairman: Giovanni Bolelli

<table>
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<tbody>
<tr>
<td>9h00</td>
<td>Process prediction / control implementing artificial intelligence methods and numerical modelling, in particular for robot trajectories. Prof. Ghislain Montavon – University of Belfort Montbéliard (France)</td>
</tr>
<tr>
<td>9h30</td>
<td>Numerical simulation of several YSZ impacts on a stainless steel substrate under ArH2 plasma spray conditions. Frédéric Sarret</td>
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### Spray process – session 4

Chairman: Robert Vassen

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>9h50</td>
<td>The Influence of Substrate Temperature on Properties of APS and VPS/W Coatings. Ondrej Kovářík</td>
</tr>
<tr>
<td>10h10</td>
<td>Correlation of Powder Feeding Parameters and Properties of Plasma Sprayed Alumina Coatings Evaluated With a New Camera Diagnostic System. Ville Maikainen</td>
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### Nanotechnology – session 2

Chairman: Alain Denoirjean

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>11h10</td>
<td>Thermal spraying with Suspensions - combining technical Performance and Economics. Dr. Michael Berger – Fraunhofer Institute (Germany)</td>
</tr>
<tr>
<td>11h40</td>
<td>A dimensionless approach to studying submicron particle impact. Guillaume Bidron</td>
</tr>
<tr>
<td>12h00</td>
<td>Graded Nanocomposite Ceramic Coatings fabricated from conventional coarse grained powder. Tomas Chraska</td>
</tr>
<tr>
<td>12h20</td>
<td>Zirconium field electron emitters on template from suspension plasma sprayed bioactive glass coatings with acicular microstructures. Zbigniew Znamierowski</td>
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### Coatings properties – session 4

Chairman: Mario Tului

<table>
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<th>Time</th>
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<tbody>
<tr>
<td>11h10</td>
<td>In-situ Monitoring of Cracking in Ceramic Coatings during Plasma Spraying by Using AE Signals. Prof. Seiji Kuroda / Dr. Kaita Ito – NIMS / University of Tokyo (Japan)</td>
</tr>
<tr>
<td>11h40</td>
<td>Effect of the initial particles size distribution on the properties of suspension plasma sprayed Al2O3-TiO2 coatings. Mónica Vicent</td>
</tr>
<tr>
<td>12h00</td>
<td>On the search for producing intermetallics by diffusion reaction of cold spray bulk deposits. Jan Vit</td>
</tr>
<tr>
<td>12h20</td>
<td>Detailed Microstructural Characterization of HPCS Ni and NiCu Coatings. Hei Koivuluoto</td>
</tr>
<tr>
<td>12h40</td>
<td>Numerical and experimental analysis of copper particles velocity in low pressure cold spraying process. Aleksandra Malachowska</td>
</tr>
</tbody>
</table>

### Spray process – session 5

Chairman: Hanlin Liao

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>11h40</td>
<td>Thermal kinetics in slag flame spraying for making hollow vitreous and samarcryalline microspheres. Thierry Poirier</td>
</tr>
<tr>
<td>12h00</td>
<td>Influence of the Handling Parameters on the Formation of Residual Stresses During HVOF-Spraying of Fine WC-12Co Powders. Peter Hollingsworth</td>
</tr>
<tr>
<td>12h20</td>
<td>Deposition of NiCrBSi coatings by atmospheric plasma spray and dry-ice blasting: microstructure and wear resistance. Shujuan Dong</td>
</tr>
</tbody>
</table>

### 13h00  LUNCH and End of 6th RIPT