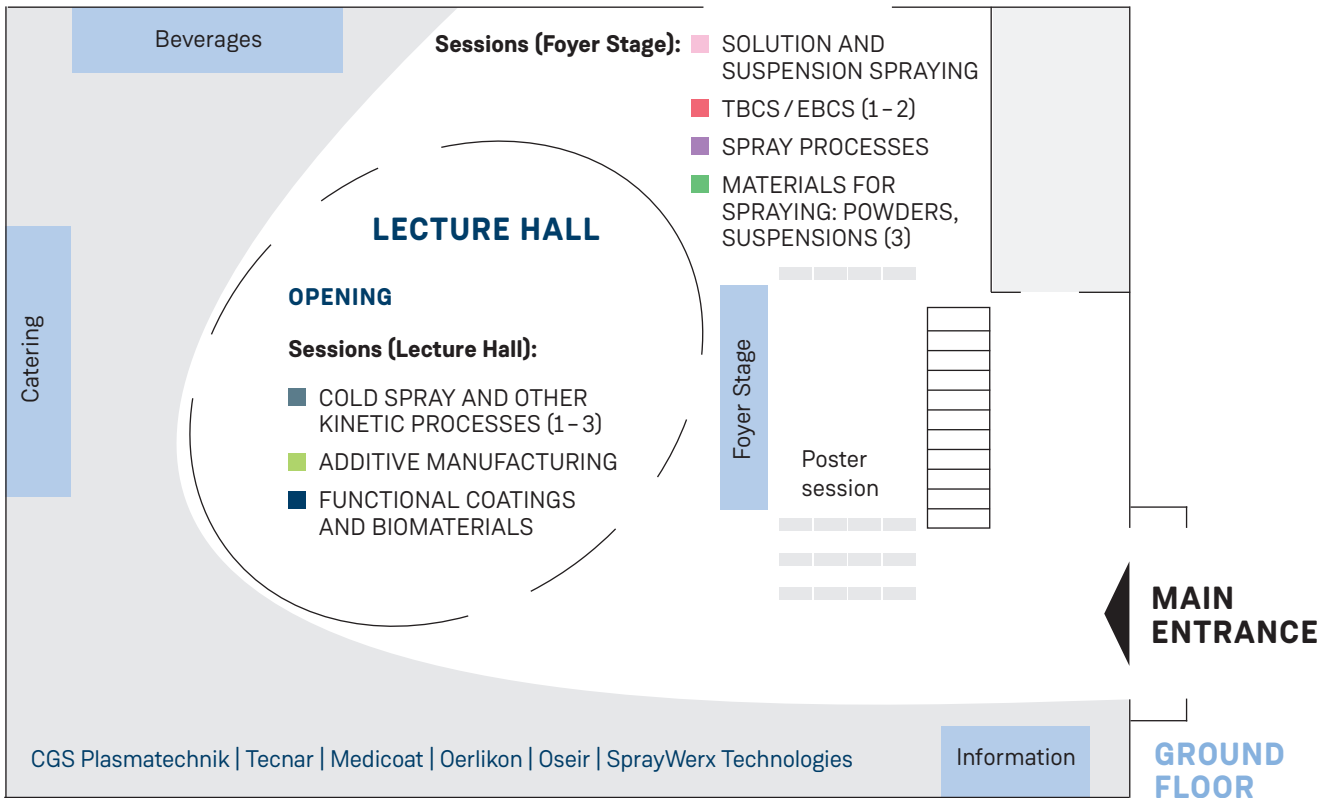


12 RIPT 2026
LES RENCONTRES INTERNATIONALES DE LA
PROJECTION THERMIQUE

10 – 12 June, 2026 · Forschungszentrum Jülich, Germany
Program

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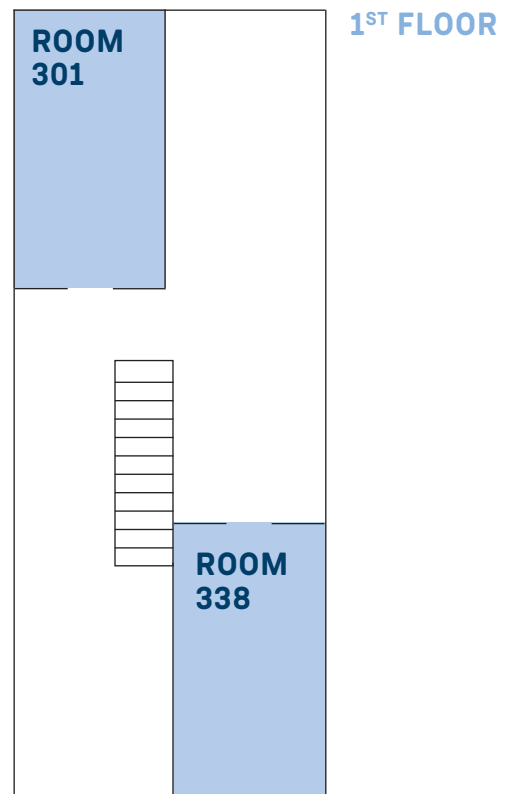
Sessions (Room 301):

- CHARACTERIZATION OF COATINGS
- AI AND DATA MINING IN TS
- THERMODUST WORKSHOP
- COBRAIN WORKSHOP
- POST SPRAY TREATMENT

EDUCATIONAL COURSE

Sessions (Room 338):

- MATERIALS FOR SPRAYING: POWDERS, SUSPENSIONS (1-2)
- COATINGS FOR ENERGY APPLICATIONS (1-2)
- SIMULATION AND MODELING AND BIOMATERIALS



CONFERENCE CHAIRS

Lech Pawłowski, University of Limoges, France
Robert Vaßen, Forschungszentrum Jülich, Germany

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CONFERENCE AGENDA

12 RIPT 2026 – LES RENCONTRES INTERNATIONALES DE LA PROJECTION THERMIQUE

WEDNESDAY, JUNE 10TH, 2026

| ROOM 338, BUILDING 04.7 | |
|---|---|
| 09:00 | EDUCATIONAL COURSE Welcome and Introduction Lech Pawłowski and Robert Vaßen |
| 09:15 | Physical Methods of Film and Coatings Deposition Lech Pawłowski |
| 10:15 | Evolution of Equipment, Technology and Feedstock in Thermal Spraying Shrikant V. Joshi |
| 11:15 | Coffee break |
| 11:30 | Thermal Spray Process Diagnostics and Deposit Formation Dynamics Sanjay Sampath |
| 12:30 | Lunch break (Seecasino) |
| 13:45 | Thermal Spray: Testing and Characterization Methods Šárka Houdková |
| 15:15 | Experimental demonstration of thermal spray processes and diagnostic methods Georg Mauer and colleagues |
| FORUM M, Buchkremerstraße 1 – 7, 52062 Aachen | |
| 19:00 – 21:00 | WELCOME RECEPTION |
| 21:00 | Young Researchers Event |

THURSDAY, JUNE 11TH, 2026

| | | | | |
|------------------------------------|--|--|---|--|
| 07:45 | Departure Shuttles | | | |
| 08:45 – 09:15 | Registration | | | |
| LECTURE HALL, BUILDING 04.7 | | | | |
| 09:15 | Opening and Welcome address Robert Vaßen and Lech Pawłowski | | | |
| 09:35 | Exhibition Teaser | | | |
| 10:15 | Coffee Break | | | |
| | LECTURE HALL | STAGE FOYER | ROOM 301 | ROOM 338 |
| | COLD SPRAY AND OTHER KINETIC PROCESSES (1) Chair: Marcin Winnicki | SOLUTION AND SUSPENSION SPRAYING Chair: Filofteia-Laura Toma | CHARACTERIZATION OF COATINGS Chair: Lech Pawłowski | MATERIALS FOR SPRAYING: POWDERS, SUSPENSIONS (1) Chair: Sophie Costil |
| 10:45 – 11:15 | From Basics on Cold Spraying to Solutions for Additive Manufacturing and Repair Frank Gärtner , Zahra Arabgol, Julio Gutierrez, Thomas Klassen, Luca Klingler, Jim Merlin Manoo Klutta, Marcel Lewke, Alexander List, Maximilian Mosig, Sören Nielsen, Levke Wiehler, Hongjian Wu <i>Helmut-Schmidt-University, University of the Federal Armed Forces Hamburg, Germany</i> | Does Solution Precursor Plasma Spraying Merit a Revisit? Shrikant Joshi <i>University West, Trollhättan, Sweden, Sweden</i> | Understanding Blistering in Ceramic Coatings: The Contribution of Laser Shock Methods in Damage Analysis Vincent Guipont , Vincent Maurel <i>MINES Paris – PSL, Centre des Matériaux, Versailles, France</i> | Microstructural Tailoring of Alumina-Based Powders: Impact of Particle Microstructure on Formation and Properties of Atmospheric Plasma Sprayed Coatings Maximilian Grimm ¹ , Lutz-Michael Berger ² , Susan Conze ² , Thomas Lampke ¹ ¹ <i>Chemnitz University of Technology, Germany;</i> ² <i>Fraunhofer IKTS Dresden, Germany</i> |
| 11:15 – 11:35 | HVOF and Cold Sprayed Hardmetal Coatings for Brake and Clutch Systems to Reduce Particulate Emissions Šárka Houdková ¹ , Marketa Jankova ¹ , Tomas Fiala ² , Josef Duliskovic ¹ , Marek Vostrak ¹ ¹ <i>Research and Testing Institute Plzen, Czech Republic Czechia;</i> ² <i>University of Alberta, Canada</i> | Prospects for Deposition of High-Entropy Oxide Coatings via Solution Precursor Plasma Spraying Ameey Anupam ¹ , Nolwenn Jegou ^{1,2} , Frantisek Lukac ³ , Radek Musalek ³ , Shrikant Joshi ¹ ¹ <i>University West, Sweden;</i> ² <i>University of Limoges, France;</i> ³ <i>Institute of Plasma Physics of the Czech Academy of Sciences, Czechia</i> | Influencing Factors on the Electrical Measurement of Oxide Coatings Susan Conze , Michael Nicolai, Anne Greiner, Sebastian Stark, Lutz-Michael Berger <i>Fraunhofer IKTS, Germany</i> | Reshaping Wear and Corrosion Protection: NbC-Fe-based Coatings as a Safer Alternative Lukas Tegelkamp ¹ , Susan Conze ² , Lutz-Michael Berger ² , Maximilian Grimm ¹ , Thomas Lampke ¹ ¹ <i>TU Chemnitz, Germany;</i> ² <i>Fraunhofer IKTS, Germany</i> |

| | LECTURE HALL | STAGE FOYER | ROOM 301 | ROOM 338 |
|---------------|---|--|--|---|
| | COLD SPRAY AND OTHER KINETIC PROCESSES (1) | SOLUTION AND SUSPENSION SPRAYING | CHARACTERIZATION OF COATINGS | MATERIALS FOR SPRAYING: POWDERS, SUSPENSIONS (1) |
| 11:35 – 11:55 | <p>Warm Spray – The Convergence of Cold Spray and HVOF</p> <p>Alan Burgess</p> <p><i>Spraywerx Technologies Inc., Canada</i></p> | <p>Epitaxial ZnO Coatings by Atmospheric Solution Precursor Plasma Spray: Influence of Parameters and Functional properties</p> <p>Mathieu Tartarin¹, Pierre Carles¹, Patrice Duport¹, Geoffroy Rivaud¹, Quentin Dubreuil¹, Fabien Remondiere¹, Laurène Youssef¹, Simon Goutier¹, Vincent Rat¹, Alan Kéromnès¹, Pascal André²</p> <p>¹Univ. Limoges, CNRS, IRCER, UMR CNRS 7315, F-87000, France; ²LPCA, UMR CNRS 6533, Université Clermont Auvergne, France</p> | <p>Influence of Heat Treatment of Cold Sprayed 316L Coatings Evaluated by Infrared Non-Destructive Inspection</p> <p>Alexey Moskovchenko¹, Michal Svantner¹, Marek Vostrak², Zanita Dlouha², Sarka Houdkova²</p> <p>¹University of West Bohemia in Pilsen, Czech Republic (Czechia); ²Research and Testing Institute Plzen, Czech Republic (Czechia)</p> | <p>High-throughput spheroidization of YSZ powders using WSP-H plasma torch</p> <p>Jonas Dudik^{1,2}, Tomas Tesar¹, Jan Medricky¹, Frantisek Lukac¹, Radek Musalek¹</p> <p>¹Institute of Plasma Physics of the Czech Academy of Sciences, Prague, Czechia; ²Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering, Prague, Czechia</p> |
| 11:55 – 12:15 | <p>Quantitative critical analysis of micron-scale defects in cold spray deposits</p> <p>Hongjian Wu, Levke Wiehler, Sören Nielsen, Alexander List, Frank Gärtner, Thomas Klassen</p> <p><i>Helmut-Schmidt-Universität/ Universität der Bundeswehr Hamburg, Germany</i></p> | <p>Plasma-derived novel high-entropy ceramics for environmental barrier coatings</p> <p>Jaasim Mulla¹, Vinay Gidla¹, Saiful Wali Khan², Konstantinos Konstantinou¹, Amarnath Pasupathi³, Yugeswaran Subramaniam³, Sneha Goel⁴, Malgorzata Grazyna Makowska⁵, Ashish Ganvir¹</p> <p>¹University of Turku, Finland; ²Indian Institute of Technology Ropar, India; ³Pondicherry University, India; ⁴VTT Technical Research Centre of Finland Ltd, Finland; ⁵Paul Scherrer Institute, Switzerland</p> | <p>Depth-resolved synchrotron μPXRD and ToF-SIMS studies on complex rare-earth perovskite as thermal barrier coating revealing multi-phase evolution upon thermal loading</p> <p>Yoo Jung Sohn¹, Chen Shen², Christian Schwab¹, Robert Vaßen¹</p> <p>¹Forschungszentrum Jülich GmbH, Germany; ²Deutsches Elektronen-Synchrotron DESY, Germany</p> | <p>Rational Design of Ceramic Materials and Microstructure for Integrated Thermal Barrier and Corrosion Resistant Coatings in diverse Industrial Applications</p> <p>Sivakumar Govindarajan, Bhavani K, Manojkumar P</p> <p><i>ARCI, India</i></p> |
| 12:15 | Lunch and Poster Session | | | |

POSTER PROGRAM

POSTER SESSION THURSDAY, JUNE 11TH 2026, 12:15 – 14:00

Posters are displayed for the whole conference duration. Best posters will be awarded at the conference dinner.

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| P1 | <p>Experimental analysis of residual stress build-up during cold gas spraying of titanium: in-situ curvature-based analysis vs. incremental hole-drilling</p> <p>Dhruvit Gabani¹, Zahra Arabgol², Levke Wiehler², Alexander List², Thomas Klassen², Frank Gärtner², Jens Gibmeier¹</p> <p>¹Karlsruhe Institute of Technology, Karlsruhe, Germany; ²Helmut Schmidt University, Hamburg, Germany</p> |
| P2 | <p>A Digital Twin Framework for Cold Spraying: Real-Time Visualization and AI-Based Prediction</p> <p>Belahrache Ahmed^{1,2}, Alzubi Sereen^{1,2}, Gaber Jaafar³, Deng Sihao^{1,2}, Nirina Raelison Rija^{1,2}</p> <p>¹Université Marie et Louis Pasteur, Université de Technologie de Belfort-Montbéliard (UTBM), CNRS, Interdisciplinary Carnot Institute of Burgundy (ICB), UMR 6303, 90010 Belfort Cedex, France; ²Université Bourgogne Europe, CNRS, Interdisciplinary Carnot Institute of Burgundy (ICB), UMR 6303, 21000 Dijon, France; ³Université Marie et Louis Pasteur, UTBM, CNRS, institut FEMTO-ST, F-90000 Belfort, France</p> |
| P3 | <p>Development of a 2D Materials Database for Cold Spray Applications in Renewable Energy Systems</p> <p>Camila Barreneche, Lorena Betancor-Cazorla, Alex Mihi, Sergi Dosta</p> <p>University of Barcelona, Spain</p> |
| P4 | <p>Influence of Spray Parameters on the Properties of Al₂O₃ Coatings Deposited by APS</p> <p>Jiří Frank</p> <p>Research and Testing Institute Pilsen, Czech Republic (Czechia)</p> |
| P5 | <p>Influence of Water Vapor on Thermal Barrier Coatings on high Temperature Components in Gas Turbines</p> <p>Sara Catalina Pineda Heresi, Robert Vassen</p> <p>Forschungszentrum Jülich, Germany</p> |
| P6 | <p>Integrated Multi-Sensor Monitoring System for Predictive Quality control in Cold Spray Additive Manufacturing</p> <p>Yaman Sahu¹, Jussi Larjo², Heli Koivuluoto¹</p> <p>¹Materials Science and Environmental Engineering, Faculty of Engineering and Natural Sciences, Tampere University, Tampere, Finland; ²Oseir Ltd., Tampere, Finland</p> |
| P7 | <p>Investigating Segmentation Cracking in Thermal Barrier Coating Manufacturing</p> <p>Eunike Christine¹, Emine Bakan¹, Robert Vaßen^{2,3}</p> <p>¹Siemens Energy Global GmbH & Co. KG, Berlin, Germany; ²Institute of Energy Materials and Devices, Materials Synthesis and Processing (IMD-2), Forschungszentrum Jülich GmbH, 52425 Jülich, Germany; ³Institute for Materials, Ruhr-Universität Bochum, Bochum, Germany</p> |
| P8 | <p>Investigation of bond coat oxidation in hydrogen combustion atmospheres</p> <p>Mark Alexander Uiherr, Mario Rudolphi, Mathias Christian Galetz</p> <p>DECHEMA Forschungsinstitut, Germany</p> |
| P9 | <p>Microstructure-Informed Phenomenological Life Prediction Modeling for Dense Vertically Cracked (DVC) Thermal Barrier Coatings</p> <p>Giulia Pedrizzetti, Rita Bottacchiari, Laura Paglia, Francesco Marra, Giovanni Pulci</p> <p>Department of Chemical Engineering, Materials, Environment, Sapienza University of Rome, INSTM Reference Laboratory for Engineering of Surface Treatments, Rome, Italy</p> |

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| P10 | <p>Noble metal-free corrosion protection coatings for PEM electrolyzer PTLs</p> <p>Noah Leuschen, Tim Sievert, Benedikt Böhm, Robert Vaßen <i>Forschungszentrum Jülich GmbH, Germany</i></p> |
| P11 | <p>Plasma spraying of NiO-YSZ anodes for SOFCs by WSP-H torch</p> <p>Petr Čapek, Andrii Rednyk, Tomáš Tesař, Ksenia Illková, Tomáš Chráska, Jakub Minařík, Radek Mušálek, Romain Géniois <i>Institute of Plasma Physics of the Czech Academy of Sciences, Czech Republic (Czechia)</i></p> |
| P12 | <p>Process Parameter Optimization for TWAS and Cold Spray of an Al-Fe-Based Alloy</p> <p>Andrij Krasij, Marek Vostřák, Šárka Houdková <i>Research and Testing Institute Plzen, Czech Republic (Czechia)</i></p> |
| P13 | <p>RF-ICP Plasma Spraying of Functionally Graded Copper-Tungsten Coatings for Plasma-Facing Applications</p> <p>Jakub Klecka¹, Joris Fellingner², Frantisek Lukac¹, Jakub Minarik¹, Petr Kralicek¹ <i>¹Institute of Plasma Physics of the CAS, Czech Republic (Czechia); ²Max Planck Institute for Plasma Physics, Greifswald, Germany</i></p> |
| P14 | <p>Spray Drying and Characterization of Nano-YAG/SiC Composite Powders for Self-Healing Thermal Barrier Coatings</p> <p>Ewa Filipkowska^{1,2}, Amirhossein Pakseresht³, Marzena Lachowicz^{1,2}, Pawel Sokolowski^{1,2} <i>¹Faculty of Mechanical Engineering, Wrocław University of Science and Technology, Wrocław, Poland; ²Centre of Materials Science and Metal Forming, Wrocław University of Science and Technology, Wrocław, Poland; ³FunGlass – Centre for Functional and Surface Functionalized Glass, Alexander Dubček University of Trenčín, Študentská 2, 911 50 Trenčín, Slovakia</i></p> |
| P15 | <p>Tribological Performance of Stellite 6 Coatings Deposited by HVOF and Cold Spray Processes</p> <p>Martin Berka <i>Research and Testing Institute Pilsen, Czech Republic (Czechia)</i></p> |
| P16 | <p>Influence of the spray trajectories on the residual stress development in cold-sprayed deposits</p> <p>Zahra Arabgol¹, Alexander List¹, Frank Gärtner¹, Thomas Klassen¹, Dhruvit Gabani², Jens Gibmeier² <i>¹Helmut Schmidt University, Germany; ²Karlsruhe Institute of Technology (KIT), Germany</i></p> |
| P17 | <p>From Wet Milled Cu-Graphene Powder to 2DMMCs via Cold Spray Additive Manufacturing</p> <p>Fatemeh Zarei¹, Amir Ardeshiri Lordejani¹, Hyunjong Lee², Siyuan Ruan³, Davoud Jafari², Wessel W. Wits^{2,4}, Shuo Yin³, Rocco Lupoi³, Mario Guagliano¹, Sara Bagherifard¹ <i>¹Politecnico di Milano, Italy; ²University of Twente, Enschede, the Netherlands; ³Trinity College Dublin, Dublin, Ireland; ⁴Royal Netherlands Aerospace Centre (NLR), Marknesse, the Netherlands</i></p> |
| P18 | <p>Compilation of different LDA (Laser Doppler Anemometry) measurements and new improvements of PSI (Particle Shape Imaging) diagnostic method</p> <p>Stephan Zimmermann, Jochen Schein <i>Universität der Bundeswehr, Germany</i></p> |
| P19 | <p>Calcium phosphates cold sprayed on PEEK substrates: insight on coating construction mechanisms</p> <p>Clément Deschamps¹, Pierre Bertrand², Maelenn Aufray¹, Ghislaine Bertrand¹ <i>¹CIRIMAT, Univ. Toulouse, Toulouse INP, CNRS, Toulouse, France; ²ICB, Univ. Marie et Louis Pasteur, CNRS, UTBM, Belfort, France</i></p> |
| P20 | <p>Towards cost-effective and scalable high-temperature alkaline electrolysis cells</p> <p>Ismael Quirantes, Sonja Frerich, Felix Lohmann-Richters, Robert Vaßen <i>Forschungszentrum Jülich GmbH, Germany</i></p> |

| | LECTURE HALL | STAGE FOYER | ROOM 301 | ROOM 338 |
|---------------|---|---|--|---|
| | <p>COLD SPRAY AND OTHER KINETIC PROCESSES (2)</p> <p>Chair: Frank Gärtner</p> | <p>TBCS/EBCS (1)</p> <p>Chair: Edward J Gildersleeve V</p> | <p>AI AND DATA MINING IN TS</p> <p>Chair: Vincent Guipont</p> | <p>MATERIALS FOR SPRAYING: POWDERS, SUSPENSIONS (2)</p> <p>Chair: Leszek Łatka</p> |
| 14:00 – 14:30 | <p>Advancing Low-Pressure Cold Spray for Wear Protection: Deposition Strategies for Hard Materials</p> <p>Marcin Winnicki, Aleksandra Małachowska, Anna Gibas</p> <p><i>Wrocław University of Science and Technology, Poland</i></p> | <p>High Temperature Coating Systems at Siemens Energy: Technologies and Key Challenges</p> <p>Markus Wysgol</p> <p><i>Siemens Energy Global GmbH & Co KG, Germany</i></p> | <p>Building a Comprehensive and Consistent Database of Aerospace Coatings for Plasma Spray Digitalization</p> <p>Vincent Rat¹, Lila Randriamanananjara¹, Loïse Cao¹, Thierry Chotard¹, Lucille Despres¹, Alain Denoirjean¹, Quentin Dubreuil¹, Simon Goutier¹, André Liberati¹, Olivier Messe², Jean-Philippe Poli⁴, Céline Ruelle³, Patrice Valorge¹</p> <p><i>¹Université of Limoges, CNRS, IRCER, UMR7315, F-87000 Limoges, France; ²OERLIKON AM Europe GmbH, Germany; ³SAFRAN Tech, rue des jeunes bois, Châteaufort, CS80112, 78114 Magny-les-Hameaux, France; ⁴CEA, LIST, 91191 Gif-sur-Yvette cedex, France</i></p> | <p>Alternatives to WC for wear resistance in light of health, global economics and politics</p> <p>Lutz-Michael Berger, Susan Conze</p> <p><i>Fraunhofer IKTS, Germany</i></p> |
| 14:30 – 14:50 | <p>In-Situ Micro-Forging Assisted Cold Spray for Aluminum Coating and Repair</p> <p>Amit Kumar Sharma¹, Abhinav Anand², Jabik Brouwer¹, Ferdy Touwen¹</p> <p><i>¹Titomic Europe B.V., Netherlands; ²Department of Mechanical Engineering, Politecnico di Milano, Milano, Italy</i></p> | <p>Microengineering Self-Healing Thermal Barrier Coatings: Local Effects to Multiscale Durability</p> <p>Pawel Sokolowski</p> <p><i>Wrocław University of Science and Technology, Poland</i></p> | <p>An innovative solution for fully automatic determination of the coating quality of thermal-sprayed coatings</p> <p>Margarita Bambach¹, Mattia Fedrigo², Lutz Fassl², Elias Abdel-Sater²</p> <p><i>¹Oerlikon Metco, Switzerland; ²Oerlikon Digital Hub, Germany</i></p> | <p>Pretreatment of polymer composite feedstocks for flame spray: influence of surface functionalisation and mechanical mixing on powder properties and spray behaviour</p> <p>Eero Helmi, Reza Jafari, Razieh Alikhanifaradonbeh, Essi Sarlin, Heli Koivuluoto</p> <p><i>Tampere University, Finland</i></p> |

| | LECTURE HALL | STAGE FOYER | ROOM 301 | ROOM 338 |
|---------------|---|--|--|---|
| | COLD SPRAY AND OTHER KINETIC PROCESSES (2) | TBCS/EBCS (1) | AI AND DATA MINING IN TS | MATERIALS FOR SPRAYING: POWDERS, SUSPENSIONS (2) |
| 14:50 – 15:10 | <p>Effect of Surface Mechanical Pre-Hardening on the Abrasive Wear Resistance of APS-Deposited Hadfield Steel Coatings</p> <p>Aleksandra Malachowska¹, Paweł Sokółowski², Marcin Winnicki³, Adam Sajbura⁴, Thomas Lindner⁵</p> <p>¹Wrocław University of Science and Technology, Poland; ²Wrocław University of Science and Technology, Poland; ³Wrocław University of Science and Technology, Poland; ⁴Wrocław University of Science and Technology, Poland; ⁵Chemnitz University of Technology, Chemnitz</p> | <p>Probing surface “silicate-phobicity” properties of suspension plasma-sprayed coatings for thermal barrier coating applications.</p> <p>Emilie Lam^{1,2}, Aurélien Sikora³, Quentin Dubreuil², Alice Dolmaire¹, Lucille Despres², Aurélie Jankowiak¹, Laura Gemini³, Alan Keromnes²</p> <p>¹DMAS, ONERA, Université Paris-Saclay, F-91120 Palaiseau, France; ²Univ. Limoges, CNRS, IRCER, UMR 7315, F-87000 Limoges, France; ³Alphanov, Institut d’Optique d’Aquitaine, F-33400 Talence, France</p> | <p>Unsupervised process window identification in thermal spray operations with the AccurasprayHUB</p> <p>Thomas Garcin, Ahmed Sabsabi, David Georgaris, Jean-Félice Henri, David Lessard, Wania Jibrán, Jean-Nicolas Robert, Alexandre Nadeau</p> <p>Tecnar Automation Ltee, Canada</p> | <p>RF-ICP plasma spheroidization of YAG ceramic powders for additive manufacturing</p> <p>Jakub Minařík^{1,2}, Tomáš Tesaří, Radek Mušálek¹, Jan Čížek¹, Jakub Klečka¹, František Lukáč¹</p> <p>¹Institute of Plasma Physics of the Czech Academy of Sciences, Czech Republic (Czechia); ²Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering, Czech Republic (Czechia)</p> |
| 15:10 – 15:30 | <p>Effect of HVOF Spray Parameters on the Microstructure and Mechanical Characteristics of High-Entropy Alloy Coatings</p> <p>Acacio Rincón¹, Mónica Salazar-Lago^{1,2}, Georgiy Barykin¹, María Parco¹</p> <p>¹Thermal Spray Group, Industry and Transport Division, TECNALIA, C/ Gabiria 82-84, 20305 Irun, Spain; ²Departamento de Química Aplicada, Facultad de Química, Universidad del País Vasco/ Euskal Herriko Unibertsitatea (UPV/EHU), 20018 Donostia-San Sebastián, Spain</p> | <p>The Role of Bondcoat in High-Temperature Oxidation Resistance of Suspension-Sprayed YSZ Topcoats</p> <p>Filofteia-Laura Toma¹, Stefan Scheitz², Irina Shakhverdova¹, Radosław Swadźba², Bogusław Mendala³, Lucjan Swadźba³, Elliott Degouilles⁴, Vincent Guipont⁴, Vincent Maurel⁴, Ravisankar Naraparaju⁵, Revati Ambekar⁵, Lukasz Pyclik⁶, Szymon Kucia⁶</p> <p>¹Fraunhofer Institute for Material and Beam Technology IWS, Germany; ²Lukasiewicz Research Network – Upper Silesian Institute of Technology, Poland; ³Silesian University of Technology, Poland; ⁴MINES Paris – PSL, MAT – Centre des Matériaux, France; ⁵Institute for Frontier Materials on Earth and in Space, German Aerospace Center (DLR), Germany; ⁶Avio Aero Polska, Poland</p> | <p>Data-Driven Modeling of Deposition Efficiency and Coating Thickness in cold spraying</p> <p>Belahrache Ahmed^{1,2}, Alzubi Sereen^{1,2}, Gaber Jaafar³, Deng Sihao^{1,2}, Nirina Raoelison Rija^{1,2}</p> <p>¹Université Marie et Louis Pasteur, Université de Technologie de Belfort-Montbéliard (UTBM), CNRS, Interdisciplinary Carnot Institute of Burgundy (ICB), UMR 6303, 90010 Belfort Cedex, France; ²Université Bourgogne Europe, CNRS, Interdisciplinary Carnot Institute of Burgundy (ICB), UMR 6303, 21000 Dijon, France; ³Université Marie et Louis Pasteur, UTBM, CNRS, institut FEMTO-ST, F-90000 Belfort, France</p> | <p>Influence of Bond Layer Type on the Tribological Behavior of Thermally Sprayed Metallic Coatings on CFRP Substrates.</p> <p>Žaneta Dlouhá</p> <p>Research and Testing Institute Pilsen, Czech Republic (Czechia)</p> |
| 15:30 | Coffee Break | | | |

| | LECTURE HALL | STAGE FOYER | ROOM 301 | ROOM 338 |
|---------------|---|---|--|--|
| | COLD SPRAY AND OTHER KINETIC PROCESSES (3) Chair: Šárka Houdková | TBCS/EBCS (2) Chair: Ladislav Čelko | THERMODUST WORKSHOP Chair: Sergi Dosta | COATINGS FOR ENERGY APPLICATIONS (1) Chair: Maximilian Grimm |
| 16:00 – 16:30 | <p>Surface Engineering Challenges: Emerging and Missed Opportunities</p> <p>Christopher C. Berndt <i>Swinburne University of Technology, Australia</i></p> | <p>Air plasma spraying of thermal-environmental barrier coatings for future ceramic turbine components: fabrication, durability testing, and the formation of a diffusion-bonded interface at the microsecond timescale</p> <p>Edward J Gildersleeve V <i>GE Aerospace Research, United States of America</i></p> | <p>From Exfoliation to Printing: Scalable Synthesis and Mechanistic Insights into 2D Metal Matrix Composites_Thermodust (2DMMC) workshop</p> <p>Apostolos Koutsoukis¹, Siyuan Ruan², Ruben Cabello³, Sergi Dosta³, Shuo Yin², Rocco Lupoi², Valeria Nicolosi¹</p> <p><i>¹School of Chemistry, CRANN and AMBER Research Centres, Trinity College Dublin, College Green, Dublin D02 PN40, Ireland; ²Trinity College Dublin, The University of Dublin, Department of Mechanical, Manufacturing & Biomedical Engineering, Dublin, Ireland; ³SDT, Departament de Ciència de Materials i Química Física, Universitat de Barcelona, C/ Martí i Franqués 1, 08028, Barcelona, Spain</i></p> | <p>Impact of Laser texturing to optimize part service life and for catalytic performances</p> <p>Sophie Costil <i>UTBM, France</i></p> |
| 16:30 – 16:50 | <p>Micro-Forging assisted Cold Spray of Al6061 for near bulk Properties</p> <p>Sören Nielsen¹, David Schimmbaek², Alexander List¹, Frank Gärtner¹, Thomas Klassen¹</p> <p><i>¹Helmut-Schmidt-University, University of the Federal Armed Forces Hamburg, Germany; ²Airbus Defence and Space GmbH, Germany</i></p> | <p>CMAS corrosion performance evolution of thermal barrier coatings developed by APS and EBPVD techniques</p> <p>Santhosh Kumar Vaiyapuri¹, Mageshwaran Nagaraj², Arivarasu Moganraj², Andrzej Nowotnik³, Grazyna Mrowka-Nowotnik³</p> <p><i>¹School of Mechanical Engineering (SMEC), Vellore Institute of Technology, Vellore, Tamil Nadu, India – 632014; ²Centre for Innovative Manufacturing and Research (CIMR), School of Mechanical Engineering (SMEC), Vellore Institute of Technology, Vellore, Tamil Nadu, India – 632014; ³Department of Material Science, Research and Development Laboratory for Aerospace Materials, Rzeszow University of Technology, al. Powstańców Warszawy 12, 35-959 Rzeszów, Poland</i></p> | <p>Plasma-assisted synthesis and processing of 2D nanomaterials</p> <p>Janez Zavašnik, Neelakandan M Santhosh, Uroš Cvelbar</p> <p><i>Institut "Jožef Stefan", Ljubljana, Slovenia</i></p> | <p>Advanced cooling of power electronics for automotive coolers and busbars</p> <p>Reeti Singh¹, Jan Kondas², Leonhard Holzgassner³</p> <p><i>¹Impact Innovations GmbH, Germany; ²Impact Innovations GmbH, Germany; ³Impact Innovations GmbH, Germany</i></p> |

| | LECTURE HALL | STAGE FOYER | ROOM 301 | ROOM 338 |
|---------------|--|---|--|--|
| | COLD SPRAY AND OTHER KINETIC PROCESSES (3) | TBCS/EBCS (2) | THERMODUST WORKSHOP | COATINGS FOR ENERGY APPLICATIONS (1) |
| 16:50 – 17:10 | <p>Cold Spray Deposition of Metal–Organic Framework Coatings</p> <p>Michał Ozga, Agnieszka Baszczuk, Marcin Winnicki, Marek Jasiorski, Agata Łamacz</p> <p><i>Wrocław University of Science and Technology, Poland</i></p> | <p>Advantages and Challenges of Axial Plasma Spray Deposition of Environmental Barrier Coatings</p> <p>Nicholas Curry¹, Stefan Bjorklund², Lisa Pin³, Shrikant Joshi², Madhura Bellippady²</p> <p>¹Northwest Mettech Corporation, Canada; ²University West, Sweden; ³Safran Ceramics, France</p> | <p>Influence of Powder Preparation Methods and Reinforcement Content on the Deposition Characteristics of Cold Sprayed Additively Manufactured 2D Metal Matrix Composites</p> <p>Fatemeh Zarei¹, Amir Ardeshiri Lordejani¹, Hyunjong Lee², Siyuan Ruan³, Apostolos Koutsioukis³, Camila Barreneche⁴, Sergi Dosta⁴, Davoud Jafari², Valeria Nicolosi³, Wessel W. Wits², Shuo Yin³, Rocco Lupoi³, Mario Guagliano¹, Sara Bagherifard¹</p> <p>¹Politecnico di Milano, Italy; ²University of Twente, Enschede, the Netherlands; ³Mechanical, Manufacturing & Biomedical Engineering, Trinity College Dublin, Dublin, Ireland; ⁴Departament de Ciència de Materials i Química Física, Universitat de Barcelona, Barcelona, Spain</p> | <p>Comparative Analysis of Cold-Sprayed High-Strength Copper Alloys: Microstructure and Performance of Cupalox vs. CuCrZr</p> <p>Jan Medricky, Petr Kralicek, Frantisek Lukac, Jan Cizek</p> <p><i>Institute of Plasma Physics of Czech Academy of Sciences, Czech Republic (Czechia)</i></p> |
| 17:10 – 17:30 | <p>Different crack propagation mechanisms in CSAM Al in air and vacuum</p> <p>Petr Kralicek^{1,2}, Levke Wiehler³, Ondrej Kovarik⁴, Frank Gaertner³, Jan Cizek¹</p> <p>¹Institute of Plasma Physics of the CAS, Prague, Czech Republic; ²Faculty of Mechanical Engineering, CTU, Prague, Czech Republic; ³Helmut Schmidt University, Hamburg, Germany; ⁴Faculty of Nuclear Sciences and Physical Engineering, CTU, Prague, Czech Republic</p> | <p>LASER Shock for Damage Monitoring (LASDAM) of Thermal Barrier Coatings under Sequential Exposure to Water-rich and Air Atmospheres at Temperatures up to 1200 °C</p> <p>Elliott Degouilles¹, Vincent Guipont¹, Vincent Maurel¹, Ravisankar Naraparaju², Revati Ambekar², Filofteia-Laura Toma³, Stefan Scheitz³, Radoslaw Swadzba⁴, Boguslaw Mendala⁵, Lukasz Pyclik⁶</p> <p>¹MINES Paris – PSL, MAT – Centre des Matériaux, CNRS UMR 7633, 21 allée des marronniers, 78000 Versailles, France; ²Institute for Frontier Materials on Earth and in Space, German Aerospace Center (DLR), Linder Hoehe, Cologne, 51170, Germany; ³Fraunhofer Institute for Material and Beam Technology (IWS), Dresden, Germany; ⁴Lukasiewicz Research Network – Upper Silesian Institute of Technology, Poland; ⁵Silesian University of Technology, Katowice, Pologne; ⁶Avio Aero Polska</p> | <p>Molecular dynamics analysis of heat transfer across graphene-copper interfaces in additively manufactured composites</p> <p>L.A. van Goor¹, W.N. Edeling², D. Jafari¹, H. Lee¹, A.V. Lyulin^{1,3}, W.W. Wits^{1,4}, B.J. Geurts^{1,3}</p> <p>¹University of Twente, Enschede, The Netherlands; ²Centrum Wiskunde & Informatica, Amsterdam, The Netherlands; ³Eindhoven University of Technology, Eindhoven, The Netherlands; ⁴Royal Netherlands Aerospace Centre, Marknesse, The Netherlands</p> | <p>Fabrication and characterization of BZCY coatings via thermal spray technologies for proton conducting fuel cells</p> <p>Niklas Derad, Ebru Gyoktepeliler Akin, Andreas Killinger, Wolfgang Rheinheimer</p> <p><i>IKMT, University of Stuttgart, Germany</i></p> |

| | LECTURE HALL | STAGE FOYER | ROOM 301 | ROOM 338 |
|---------------|---|--|---|---|
| | COLD SPRAY AND OTHER KINETIC PROCESSES (3) | TBCS/EBCS (2) | THERMODUST WORKSHOP | COATINGS FOR ENERGY APPLICATIONS (1) |
| 17:30 – 17:50 | <p>Aerosol Deposition of Alumina</p> <p>Andreas Elsenberg, Camilla Schulze, Frank Gärtner, Thomas Klassen</p> <p><i>Helmut Schmidt University Hamburg, Germany</i></p> | <p>MCrAlY Bond Coats for TBC Applications via Advanced HVOF-HVAF Spraying</p> <p>Monica Salazar-Lago^{1,2}, Acacio Rincon¹, Georgiy Barykin¹, Javier Cepeda², Maria Parco¹</p> <p>¹<i>Thermal Spray Group, Industry and Transport Division, TECNALIA, C/ Gabiria 82-84, 20305 Irun, Spain;</i></p> <p>²<i>Departamento de Química Aplicada, Facultad de Química, Universidad del País Vasco/ Euskal Herriko Unibertsitatea (UPV/EHU), 20018 Donostia-San Sebastián, Spain</i></p> | <p>Laser powder bed fusion of graphene-enhanced copper composites</p> <p>Hyunjong Lee¹, Davoud Jafari¹, Leonore van Goor¹, Alexey Lyulin^{1,2}, Bernard J. Geurts^{1,2}, Wessel W. Wits^{1,3}</p> <p>¹<i>University of Twente, the Netherlands;</i> ²<i>TU Eindhoven, the Netherlands;</i> ³<i>Royal NLR – Netherlands Aerospace Centre, the Netherlands</i></p> | <p>Evaluation of Gas Tightness and Phase Stability of APS-Sprayed Gas Diffusion Barrier Coatings on Oxide Ceramic Matrix Composites</p> <p>Ebru Gyoktepeliler Akin, Andreas Killinger</p> <p><i>IKMT, University of Stuttgart, Germany</i></p> |
| 18:00 | Transfer to Aachen | | | |
| | POSTWAGEN ZUM RATSCELLER , Krämerstraße 2, 52062 Aachen | | | |
| 20:00 | Conference Dinner and Poster Awards | | | |

FRIDAY, JUNE 12TH, 2026

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| 07:45 | Transfer from Aachen | | | |
| | LECTURE HALL | STAGE FOYER | ROOM 301 | ROOM 338 |
| | ADDITIVE MANUFACTURING | SPRAY PROCESSES | COBRAIN WORKSHOP | COATINGS FOR ENERGY APPLICATIONS (2) |
| | Chair: Rocco Lupoi | Chair: Andreas Killinger | Chair: Sergi Dosta | Chair: Mario Rudolphi |
| 09:00 – 09:30 | <p>Innovations in Additive and Layered Manufacturing via Thermal Spray</p> <p>Sanjay Sampath</p> <p><i>Stony Brook University, United States of America</i></p> | <p>Hybrid Plasma Spraying for Improved Functional Properties of the Coatings: Examples and Perspective</p> <p>Leszek Łatka</p> <p><i>Wrocław University of Science and Technology, Poland</i></p> | <p>Recent progress in Integrated Computational Materials Engineering (ICME) development of novel coating materials: the CoBRAIN project</p> <p>Giovanni Bolelli¹, Lorenzo Miconi¹, Luca Lusvarghi¹, Stefania Morelli¹, Maria Francesca Bonilauri¹, Alvise Bianchin², Enrico Forlin², Sergi Dosta³, Genís Clavé³, Giulia Gigante⁴, Edoardo Rossi⁴, Marco Sebastiani⁴, Anssi Laukkanen⁵, Tomi Suhonen⁵, Song Lu⁵, Luis Vallejo Rodriguez⁵, Marzuk Kamal⁶, Stephan Wurst⁷, Markus Apel⁸, Thomas Bähr⁸, Harry Kummer⁹</p> <p><i>¹Dipartimento di Ingegneria “Enzo Ferrari”, Università di Modena e Reggio Emilia, Modena, Italy; ²MBN Nanomaterialia Srl, Carbonera (TV), Italy; ³Departament de Ciència dels Materials i Química Física, Universitat de Barcelona, Barcelona, Spain; ⁴Dipartimento di Ingegneria civile, informatica e delle tecnologie aeronautiche, University of Roma Tre, Roma, Italy; ⁵VTT Technical Research Centre of Finland, Espoo, Finland; ⁶Aeonx AI, Paris, France; ⁷Balance Technology Consulting GmbH, Bremen, Germany; ⁸Access e.V., Aachen, Germany; ⁹obz innovation gmbh, Bad Krozingen, Germany</i></p> | <p>Accelerating our understanding of EBC oxidation in steam environments</p> <p>Daniel Scotson</p> <p><i>The University of Manchester, United Kingdom</i></p> |

| | LECTURE HALL | STAGE FOYER | ROOM 301 | ROOM 338 |
|---------------|---|---|--|--|
| | ADDITIVE MANUFACTURING | SPRAY PROCESSES | COBRAIN WORKSHOP | COATINGS FOR ENERGY APPLICATIONS (2) |
| 09:30 – 09:50 | <p>Fatigue and fracture properties of AM Ti6Al4V alloy</p> <p>Filip Wick^{1,2}, Simone Maffia³, Tobias Stittgen³, Ondrej Kovarik⁴, Jan Cizek¹</p> <p>¹Institute of Plasma Physics of Czech Academy of Science, Prague, Czech Republic (Czechia); ²Faculty of Mechanical Engineering, Czech Technical University, Prague, Czech Republic (Czechia); ³Ponticon GmbH, Wiesbaden, Germany; ⁴Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University, Prague, Czech Republic (Czechia)</p> | <p>Modification of the twin wire arc spray process to improve the processing of low-melting alloys</p> <p>Eduard Drehband¹, Ingor Baumann¹, Wolfgang Tillmann¹, Jan Morgenschweis²</p> <p>¹Institute of Materials Engineering, TU Dortmund University, Leonhard-Euler-Straße 2, D 44227 Dortmund, Germany; ²ELMA-Tech GmbH, Wisseraue 1, D-51597 Morsbach, Germany</p> | <p>Multi-Physics Simulations to Elucidate Microstructural Features in Thermal Spray Coatings of HEA's</p> <p>Markus Apel¹, Ralf Berger¹, Anssi Laukkanen², Lu Song², Tomi Suhonen²</p> <p>¹Access e.V., Germany; ²Teknologian Tutkimuskeskus VTT Oy, Finland</p> | <p>Development of corrosion protection coatings for PEM electrolyzers</p> <p>Tim Sievert¹, S. Zerressen², A. Glüsen², S. Uhlenbruck¹, R. Vaßen¹</p> <p>¹Forschungszentrum Jülich, Institute of Energy Materials and Devices (IMD), Materials Synthesis and Processing (IMD-2); ²Forschungszentrum Jülich, Institute of Energy Technologies (IET), Electrochemical Process Engineering (IET-4)</p> |
| 09:50 – 10:10 | <p>Tailoring Cold Sprayed Al6061 Deposits Through Controlled Surface Temperatures</p> <p>Alexander List, Luca Klingler, Jim Merlin Manoo Klutta, Frank Gärtner, Thomas Klassen</p> <p>Helmut-Schmidt-University, University of the Federal Armed Forces Hamburg, Germany, Germany</p> | <p>Process-particle-substrate interactions in internal diameter coating using the ID-HVOF spray process</p> <p>Mark Dennis Kensy¹, Manuel Pinho Ferreira¹, Ingor Baumann¹, Wolfgang Tillmann¹, Stephan Zimmermann², Jochen Schein², Jonas Zajaczkowski¹</p> <p>¹Technische Universität Dortmund, Germany; ²Universität der Bundeswehr München</p> | <p>High-Throughput Feedstock Production for Thermal Spray Coatings: HEA and TiC-Based CerMets via Mechanical Alloying in the CoBRAIN Project</p> <p>Alvise Bianchin</p> <p>MBN nanomaterialia srl, Italy</p> | <p>From Data to Design: A Database-Driven Approach for High-Entropy Alloy Selection in CSP Plants Applications</p> <p>Lorena Betancor-Cazorla, Camila Barreneche, Genís Clavé-Battle, Sergi Dosta</p> <p>University of Barcelona, Spain</p> |
| 10:10 – 10:30 | <p>Microstructural and mechanical characterisation of additively manufactured 430L steel components by cold spraying</p> <p>Jiangnan Chen¹, Alexander List², Frank Gaertner², Thomas Klassen², Max Guendel¹</p> <p>¹Chair of steel structures, Helmut Schmidt Universität Hamburg, Germany; ²Institute for materials science, Helmut Schmidt Universität Hamburg, Germany</p> | <p>Off-angle plasma spraying of ceramic coatings onto polymer substrates</p> <p>Petr Čapek^{1,2}, Tomáš Tesař¹, Jan Čížek¹, Radek Mušálek¹</p> <p>¹Institute of Plasma Physics of the Czech Academy of Science, Czech Republic (Czechia); ²Department of Materials Engineering, Faculty of Mechanical Engineering, Czech Technical University in Prague, Czech Republic (Czechia)</p> | <p>Using innovative software tools for assessment and selection of Thermal Spray Coatings</p> <p>Stephan Wurst¹, Marzuk Kamal²</p> <p>¹BALANCE Technology Consulting GmbH, Germany; ²AEONIX AI</p> | <p>High-Heat Flux Resilience of Low-Pressure Plasma Sprayed Tungsten Coatings for Nuclear Fusion Applications</p> <p>G. Schmidtman¹, A. Litnovsky¹, J. Risch², D. Dickes², M. Rasinski¹, J. W. Coenen^{1,3}, B. Böswirth², R. Vaßen¹, S. Brezinsek¹, Ch. Linsmeier¹, G. Mauer¹</p> <p>¹Forschungszentrum Jülich GmbH, Germany; ²Max-Planck-Institut für Plasmaphysik (IPP), Germany; ³University of Wisconsin; USA</p> |
| 10:30 | Coffee Break | | | |

| | LECTURE HALL | STAGE FOYER | ROOM 301 | ROOM 338 |
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| | FUNCTIONAL COATINGS AND BIOMATERIALS Chair: Sanjay Sampath | MATERIALS FOR SPRAYING: POWDERS, SUSPENSIONS (3) Chair: Georg Mauer | POST SPRAY TREATMENT Chair: Giovanni Bolelli | SIMULATION AND MODELING Chair: Susan Conze |
| 11:00 – 11:30 | Solution precursor plasma sprayed Ce-doped Bi ₂ O ₃ coating with tuned bandgap for enhanced visible-light photocatalytic activities Meiqi Song, Botao Zhang, Hua Li <i>Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, China, People's Republic of China</i> | Recent Experiences in DIY Plasmatron Development, Thermal Spray Powders Modification and Electrical Insulation Coatings Ladislav Čelko ¹ , Jozef Kraxner ² , Michaela Remešová ¹ , Serhii Tkachenko ¹ , Vendula Bednaříková ¹ , Monika Micháľková ^{2,3} , Amirhossein Pakseresh ² ¹ Brno University of Technology, Czech Republic (Czechia); ² Alexander Dubček University of Trenčín, Slovak Republic; ³ Joint Glass Centre of the IIC SAS, TnUAD, FChPT STU, FunGlass, Slovak Republic | Effect of annealing on mechanical properties and fatigue crack growth rate in cold spray additively manufactured IN718 Abhinav Anand ^{1,2} , Ondřej Kovářik ³ , Ferdy Touwen ⁴ , Mario Guagliano ¹ , Jan Cizek ^{2,5} ¹ Department of Mechanical Engineering, Politecnico di Milano, Italy; ² Institute of Plasma Physics of the Czech Academy of Sciences, Prague, Czechia; ³ Faculty of Nuclear Science and Physical Engineering, Czech Technical University, Prague, Czechia; ⁴ Titomic Europe B.V., Heerenveen, Netherlands; ⁵ Faculty of Mechanical Engineering, Czech Technical University, Prague, Czechia | Microstructure-Driven Thermal Conductivity Modeling of YSZ Thermal Barrier Coatings Anusha Sekar ¹ , Richard Trache ² , Karl Korner ² , Dusan Galusek ^{1,3} , Amirhossein Pakreseht ¹ ¹ Alexander Dubcek University of Trenčin FunGlass-Center for Functional and Surface Functionalized Glasses, Slovak Republic; ² Treibacher Industrie AG, Auer-von-Welsbach-Strasse 1, 9330, Althofen, Austria; ³ Joint Glass Centre of the IIC SAS, TnUAD, FChPT STU, FunGlass, Študentská 2, 911 50, Trenčín, Slovakia |
| 11:30 – 11:50 | Suspensions formulation and development of doped TiO ₂ sprayed coatings for visible light water splitting Ruhama Hasanov ¹ , Annegret Potthoff ¹ , Filofteia-Laura Toma ² , Stefan Scheitz ² ¹ Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Dresden; ² Fraunhofer Institute for Material and Beam Technology IWS, Dresden | Thermal sprayed nickel based coatings as promising electrocatalysts for hydrogen evolution reactions Yamina Mebdoua , Khaled Derkaoui, Chakib Talbi, Hadj Lahmar, Chaker Serdani <i>Center for Development of Advanced Technologies, Algeria</i> | Structure and properties modification of aerosol cold sprayed MAX phase coatings by powder boronizing Grzegorz Kubicki , Wiktoria Krzyżaniak <i>Łukasiewicz Research Network – Poznań Institute of Technology, 6 Ewarysta Estkowskiego St., Poznań 61-755, Poland</i> | A Strategy of Modeling of a Low-Pressure Plasma Jet Facility using Direct Simulation Monte Carlo Method Benjamin Bernard ¹ , Aurélie Quet ¹ , Vincent Gissel ¹ , Jaouen Lionel ² ¹ CEA, DAM, Le Ripault, France; ² KAIROS MODELLING SOLUTIONS, France |
| 11:50 – 12:10 | Development of Alumina-hBN Composite Coatings for High Thermal Conductivity and Electrical Insulation in Electric Vehicle Applications Rahul Jude Alroy ¹ , Xiong Xiao ² , Mohit Gupta ¹ , Stefan Björklund ¹ , Shrikant Joshi ¹ ¹ University West, Department of Engineering Science, SE-461 86 Trollhättan, Sweden; ² TRATON AB, SE-151 87 Södertälje, Sweden | Cooling Rate Dependency of Monoclinic Phase Transformation in APS Thermal Barrier Coating Systems Mario Rudolphi ¹ , Daniel E. Mack ² , Robert Vaßen ² , Timo Brune ³ , Mathias Oechsner ³ , Mathias C. Galetz ¹ ¹ DECHEMA-Forschungsinstitut, Germany; ² Forschungszentrum Jülich; ³ TU Darmstadt | Properties Enhancement of FeNi50 Deposits Fabricated by Cold Spray Through Annealing Heat Treatments Hassan Hammouda , Sabeur Msolli, Nouredine Fenineche, Hanlin Liao, Sihao Deng <i>University of Technology of Belfort-Montbéliard, France</i> | Modeling Fracture Mechanisms in Plasma-Sprayed Thermal Barrier Coatings Using a Discrete Element Approach Ilyes Bensemmame ¹ , Willy Leclerc ¹ , Nabil Ferguen ² , Mohamed Guessasma ¹ ¹ University of Picardy Jules Verne, France; ² Center for Advanced Technology Development |

| | LECTURE HALL | STAGE FOYER | ROOM 301 | ROOM 338 |
|---------------------|--|---|-----------------------------|---|
| | FUNCTIONAL COATINGS AND BIOMATERIALS | MATERIALS FOR SPRAYING: POWDERS, SUSPENSIONS (3) | POST SPRAY TREATMENT | SIMULATION AND MODELING |
| 12:10 – 12:30 | <p>Durability of Photocatalytic TiO_x-Based Coatings: The Impact of Wear on Functional Performance</p> <p>Karolina Płatek¹, Miroslaw Szala², Irena Jacukowicz-Sobala³, Jonas Dudik^{4,5}, Leszek Łatka¹</p> <p>¹Department of Metal Forming, Welding and Metrology, Faculty of Mechanical Engineering, Wrocław University of Science and Technology, Wrocław, Poland; ²Department of Materials Engineering, Faculty of Mechanical Engineering, Lublin University of Technology, ul. Nadbystrzycka 36, 20-618 Lublin, Poland; ³Department of Chemical Technology, Wrocław University of Economics and Business, Komandorska St., Wrocław 53-345, Poland; ⁴Czech Academy of Sciences, Institute of Plasma Physics, U Slovanky 2525/1a, 182 00 Prague, Czech Republic; ⁵Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering, Trojanova 13, 120 00 Prague, Czech Republic</p> | <p>Improved TiC reinforced alloys obtained by thermal spray technologies</p> <p>Sergi Dosta <i>Universitat de Barcelona, Spain</i></p> | | <p>Single-particle cold spray simulation: The influence of rough surfaces on impact process and interfacial bonding</p> <p>Siyu Chen^{1,2}, Sophie Costil^{1,2}, Sabeur Msolli^{1,2}</p> <p>¹Université Marie et Louis Pasteur, UTBM, CNRS, Laboratoire Interdisciplinaire Carnot de Bourgogne ICB UMR 6303, 90010 Belfort, France; ²Université Bourgogne Europe, CNRS, Laboratoire Interdisciplinaire Carnot de Bourgogne ICB UMR 6303, 21000 Dijon, France</p> |
| 12:30 – 12:45 | Closing | | | |
| 12:45 – 13:45 | Lunch | | | |
| 13:45 | Transfer to Düren and Aachen (or tour JTSC) | | | |
| 14:00 | Lab tour JTSC (optional) | | | |
| 15:00 | End of conference and transfer to Düren and Aachen | | | |

PARTNERS



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CONFERENCE VENUE

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FURTHER INFORMATION

<http://go.fzj.de/ript2026>



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