

Time	Wednesday, 07/05/2025					
8:00	Registration					
9:00	Opening ceremony Room: Giove					
9:40	KN1 – Fabrizio Micari – Is current research in metal forming really innovative? Chair: Luigino Filice Room: Giove					
10:20	Coffee break					
Room	Giove	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS01	MS02	MS07	MS10	MS09	MS11
Chair	Paola Serena Ginestra	Luise Kärger	Giusy Ambrogio	Giovanna Rotella and Takashi Matsumura	António Gil Andrade Campos and Sam Coppeters	Anne Marie Habraken
10:40	Gavin Chapman, Merve Nur Dogu, Medad Monu, Dermot Brabazon <i>In-Situ Multi-Sensor Monitoring of Laser Powder Bed Fusion for Digital Twin Development of Process Induced Defect Formation</i>	Baptiste Lacroix, Auriane Platzer, Julien Colmars, Emmanuelle Vidal-Sallé <i>Towards an efficient simulation tool for textile modelling at meso-scale</i>	Raphaël Le Franc, Ahmad Al Khatib, Jean-François Coulon, Jean-Benoît Le Cam, Gwenaël Picaut <i>Implementation of wing stars test for incremental sheet forming: local strain evolution analysis using digital image correlation</i>	Sylvain Etzol, Guillaume Altmeyer, Arnaud Duchosal <i>Study of the influence of milling cutting parameters of powder DED Inconel 718 on cutting forces, surface roughness and temperature</i>	Matteo Strano, Ertugrul Kaya <i>The Human Factor in FEM Based Optimization</i>	Rongfei Juan, Junhe Lian <i>Optimization on representative element volume (RVE) generation and evaluation process of Q&P1000 steel</i>
11:00	Laurent Chaunier, Mélanie Thadasack, Anne-Laure Reguerre, Achraf Chebbi, Lucas Huttin, Amélie Moisy, Sébastien Comas-Cardona, Timm Weitkamp <i>Experimental assessment and 2D-Modelling of the viscous sintering of superimposed filaments based on biopolymer</i>	Zakariae El-Alami, Audrey Hivet, Gilles Hivet <i>Finite Element Modeling of Buckle Defects Formation During RTM Preforming of Dry Woven Reinforcements</i>	Doran Nettig, Jan-Erik Rath, Thorsten Schüppstuhl, Johannes Frank, Björn Riecken, Christian-André Keun <i>Hot Double Sided Incremental Forming of Continuous Fiber Reinforced Thermoplastics: Process Analysis and System Design</i>	Nils Paucke, Martin Beutner, Philipp Damm, Gunnar Meichsner, Georg Hahn, Dirk Zimmermann, Matthias Steffens, Matthias Hackert-Oschätzchen <i>Tool wear analysis in hobbing high torque splined shafts</i>	Alessandro Lambrughì, Sandrine Thuillier, Sam Coppeters <i>Influence of DIC Settings on Temperature Field in Combined Thermal-Kinematic Measurements for Heterogeneous Tests</i>	Yadong Zhou, Keguo Lu, Redmer Van Tijing, Yutao Pei, Jan Post <i>Theoretical modelling of yield stress in cold-rolled and annealed AISI 420 steel: dependence on rolling pre-strain</i>
11:20	Stefano Belcuore, Stefano Pandini, Elisabetta Ceretti, Paola Ginestra <i>Flexible Resins Lattices Produced by Stereolithography for Biomedical Applications</i>	Lachlan Williams, Adam Thompson, Stephen Hallett, Jonathan Belnoue, Sjoerd van der Veen <i>Industrial Automated Finite Element Analysis for Dry Fibre Composite Forming</i>	Elizabeth Mamros, Ihab Ragai, Brian Young <i>Effects of Manufacturing Process on Mechanical Properties of Polyetheretherketone (PEEK) Cranial Implants Produced by Single-Point Incremental Forming (SPIF)</i>	Nicola Pozzato, Stefania Bruschi, Andrea Ghiotti, Rachele Bertolini <i>On finishing turning of Inconel 718 using WC and CBN cutting inserts under dry conditions</i>	Yajun Liu, Bojan Starman, Miroslav Halilović, Philip Eyckens, Rob Salaets, Sam Coppeters, Alessandro Lambrughì <i>Projection-based Reconstruction of Dent Strains in Thin-walled Metallic Structures</i>	Frank Schweinhaupt, Martina Müller, Tim Herrig, Thomas Bergs <i>Thermoviscoplastic modeling of the shearing process for mechanism-driven fine blanking of high manganese steel</i>

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11:40	Caterina Pasotti, Miriam Seiti, Pieter De Wever, Paola Ginestra, Pedro Fardim, Eleonora Ferraris <i>Assessing the printability of alginate—cellulose-based inks for syringe extrusion printing</i>	Bastian Schäfer, Dominik Dörr, Naim Naouar, Jan Paul Wank, Luise Kärger <i>Capabilities and limitations of pure-shear based macroscopic forming simulations for 0°/90° biaxial non-crimp fabrics</i>	Youngrok Lee, Zixuan Mu, Ankush Bansal, Alan Taub, Mihaela Banu <i>Enhancing Accuracy in Two-Point Incremental Sheet Forming (TPIF): The Influence of Compliance and Effective Squeeze Factor</i>	Alessandro Metelli, Andrea Abeni, Aldo Attanasio <i>Experimental investigation about abrasion wear of microtools through direct and indirect measurements</i>	Ali Khalfallah, Zied Ktari, Luis Filipe Menezes <i>Intelligent Approach for Accurately Identifying Constitutive Material Parameters of Anisotropic Tubular Materials</i>	Mohd Firoz Alam, Fausto Tucci, Hariharan Krishnaswamy and Uday Chakkingal <i>Implementation of Uncoupled ductile damage model for damage assessment during sheared edge stretching</i>
12:00	Marina Andreozzi, Iacopo Bianchi, Tommaso Mancina, Chiara Mignanelli, Michela Simoncini, Tommaso Verdini <i>Effect of Process Parameters on Mechanical Properties of Photopolymeric Resin in Masked Stereolithography</i>	Jan Paul Wank, Stefan Haas, Dominik Dörr, Patrik Runeberg, Benedikt Lux, Constantin Krauß, Bastian Schäfer, Luise Kärger <i>Prediction quality of macroscopic forming simulation of non-crimp fabrics for aerospace applications</i>	Daniel Spies, Frauke Hinrichs, Stefan Dietrich, Peter Groche, Volker Schulze <i>Iterative Model of Collar Height in Hole Rolling for Application in a Closed-Loop Model Predictive Product Property Control</i>	Iñaki Mirena Arrieta Galdos, Mikel Etxebeste Gallardo, Denis Soriano Moreno, Alex Rodriguez, Mikel Artola, Pedro Jose Arrazola Arriola, Gorka Ortiz de Zarate Bengoa <i>Experimental Analysis of The Substrate Influence In Tool Life In Slot Milling Of Stainless Steel</i>	Bojan Starman, Andraž Maček, Tomaž Pepelnjak, Miroslav Halilovič, Sam Coppieters <i>Out-of-plane shear testing of anisotropic sheet metals using double bridge shear test</i>	Lin Sun, Gang Cheng, Thierry Barriere <i>Investigation of fractional order model in the description of creep behaviour of thermoplastic polymer</i>
12:20	Anastasia Ciccarella, Giuseppe Dell'Avvocato, Gabriele Cortis, Daniele Cortis, Donato Orlandi, Luca Di Angelo, Luca Cortese, Edoardo Mancini <i>Meso- and macroscale modelling strategies for biomimetic structures produced using L-PBF technology</i>	Deyong Sun, Weizhao Zhang <i>Numerical modeling for forming of woven composites based on 3D strain gradient elasticity</i>	Jeannette Boll, Robert Laue, Frank Wendler, Carolin Binotsch, Till Clausmeyer, Sebastian Härtel, Olfa Kanoun, Birgit Awiszus <i>Investigations of Property-Controlled Flow Forming with defined Strain Hardening Using a Virtual Sensor</i>	Markus Diegel, Markus Meurer, Thomas Bergs <i>Influence of grain size and cobalt content on machinability of tungsten carbide with diamond-coated tools</i>	Luca Quagliato, Mattia Perin, Vahid Modanloo, Taeyong Lee <i>Expert-Informed Neural Network (EINN) for the Forming Depth Prediction from a Small-Scale Sheet Metal Forming Database</i>	Saurabh Rathore, Karo Sedighiani, Eisso Atzema, Celal Soyarslan, Ton van den Boogaard <i>CPFEM Calibration of 3D Vegter Yield Locus for DWI Battery Cans</i>
12:40	Lunch					

Time	Wednesday, 07/05/2025					
14:00	KN2 – Daniele Catelani – <i>The Digital Transformation in Manufacturing</i> Chair: Domenico Umbrello Room: Giove					
Room	Giove	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS01	MS02	MS07	MS10	MS05	MS13
Chair	Antonello Astarita	Stepan Lomov	Joost Duflo	Soichi Tamura and Pedro J. Arrazola	Yannis Korkolis and Holger Aretz	Laurentiu Slatineanu and Massimo Durante
14:40	Delphine Auzene, Mohamed Boudifa, Marwa Abid, Marie France Lacrampe, Thierry Barriere, Luc Ordynski, Sébastien Charlon <i>Investigations on Material Extrusion Process for Zirconia Filled with a Partially Bio-Based Polymer</i>	Wouter Grove, Dennis Brands, Sebastiaan Wijskamp, Remko Akkerman <i>Press Forming Simulations: Is Our Characterization Hitting the Mark?</i>	Benchmark Presentation <i>ISF: Investigating geometric accuracy in ISF</i>	Muhannad Ahmed Obeidi, Ahmed Al Hamaoy, Pruthviraj Hosuru Venkategowda, Jim White, Dermot Brabazon <i>Comparing the furnace and laser sintering of aluminum and copper parts produced by powder metallurgy</i>	Takayuki Hama, Yuto Nakata, Naoki Miyazawa, Takashi Matsuno, Yoshitaka Okitsu <i>Crystal-plasticity finite-element simulations of two-step loading of a ferrite-martensite dual phase steel sheet</i>	Luca Boccardo, Massimo Durante, Martina Panico, Maria Rosaria Ricciardi, Marco Russo, Antonio Langella <i>Hemp/PLA impregnated yarn produced by pultrusion</i>
15:00	Gabriele Locatelli, Mariangela Quarto, Gianluca D'Urso, Claudio Giardini <i>Predicting optimal L-PBF printing location according to desired part quality: a data-driven methodology</i>	Georg Zeeb, Johannes Mitsch, Michael Wilhelm, Luise Kärger, Frank Henning <i>Influence of gripper positions on the formation of wrinkles during the thermoforming process of thermoplastic UD-tape laminates</i>		Camila Caroline de Castro, Ting Chen, Diogo de Campos Fernandes, Benjamin Klusemann <i>Material flow during Constrained Friction Processing and its effects on the local properties of AM50 rods</i>	Takashi Matsuno, Yota Fukuda, Kazuyuki Shimizu, Hiroto Shoji, Mitsuru Ohata, Norio Yamashita, Hideo Yokota, Tetsuro Murai <i>Image-assimilation of Deformed Dual-Phase Steel Microstructure via U-Net Deep Learning</i>	Luca Burratti, Denise Bellisario, Fabrizio Quadri, Leandro Iorio, Loredana Santo <i>3D printing of soft actuators in nano-filled shape memory thermoplastic polyurethane</i>
15:20	Imi Ochana, François Ducobu, Khalil Homrani, Anthonin Demarbaix <i>Design of Experiment on Intelligent Materials: Tensile Test on 3D Printed Composites Reinforced with Continuous Carbon Fiber and Resistivity Detection</i>	Johannes Mitsch, Bastian Schäfer, Luise Kärger <i>Significance of the material parameters within a three-dimensional solid-shell element for thermoforming simulation</i>	Lukas Kersting, Sharin Kumar Gunasagran, Bahman Arian, Julian Roza Vasquez, Ansgar Trächtler, Werner Homberg, Frank Walther <i>Real-time modelling of incremental multi-pass flow forming by a hybrid, data-based model</i>	Laura Mangourny, Bruno Lavis, Yessine Ayed, Guénaél Germain <i>Cryogenic Effects on the Mechanical Behavior of Bulk Metallic Glasses</i>	Niklas Fehlemann, Dorothea Czempas, Maximilian Hribsek, Sebastian Münstermann <i>Process – Structure – Property Relations in DP800 investigated using Representative Volume Elements</i>	Philipp Plänitz, Richard Richard Petermann, Artem Shemchuk, Sören Majcherek, Markus Barth, Matthias Hackert-Oschätzchen <i>Concept and prototype of a 3-component extruder for fusion deposition of vibration-damping polymer concrete</i>

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15:40	Zsolt Kállai, Johann Kipping, Jan Bremer, Thorsten Schüppstuhl <i>A Preliminary Study: Support-Free Manufacturing of Rotationally Symmetric Pipes from Continuous Carbon Fiber Reinforced Polymers with Multi-Axis 3D Printing</i>	Gerben Bieleman, Wouter Groupe, Francesco Rondina, Edwin Klompen, Remko Akkerman <i>Squeeze flow visualization using digital image correlation</i>	Anh Tuan Vu, Constantin Meiners, Skadi Bögershausen, Cornelia Rojacher, Tim Brepols, Stefanie Reese, Thomas Bergs <i>Glass4AutoFuture: Modeling Thermal-Mechanical Dynamics in Vacuum-assisted Deep Drawing of 3D Thin Glass Components for Automotive Interiors</i>	Elmar Galiev, Maik Linnemann, Sven Winter, Lisa Winter, Verena Psyk, Martin Dix <i>Influence of punch velocity during high-speed blanking of 22MnB5 steel with electromagnetic drive</i>	Kazuma Kita, Toshihiko Kuwabara, Tomoki Nedachi, Yuya Murai, Nobuyuki Seki <i>Hole expansion limit prediction for DP980 steel sheet</i>	Mihaela Nicolau, Laurențiu Slătineanu, Andreea Istrate, Marius-Andrei Mihalache, Oana Dodun <i>Accomplishing functional requirements of a device used in testing perforation resistance of a 3D printed part</i>
16:00	Manuel Lopez Cabrera, Wahn Zouhri, Sandra Zimmer-Chevret, Alexandre Collot, Stéphane Mathieu, Daniel Boehm, Jean-Yves Dantan <i>Comparison of Machine Learning Classification techniques for Process Window identification applied on different manufacturing processes</i>	Anna Krüger, Sascha Kilian, Frank Henning <i>Influence of the pre-heating process of thermoplastic mono-material sandwich structures for thermoforming</i>	Maximilian Bachmann, Kim Rouven Riedmüller, Johannes Michel, Christian Hagenlocher, Mathias Liewald, Thomas Graf <i>Influence of near-surface embossing on the hot crack formation during laser beam welding of metal sheets from 6000 aluminum alloys</i>	Maria Rosaria Saffioti, Chiara Morano, Serafino Caruso, Mariateresa Caggiano, Giovanna Rotella, Domenico Umbrello <i>Enhancing Interfacial Bonding Strength in Fiber-Metal Laminates through Burnishing and Laser Texturing Surface Treatments for Improved Mechanical Performance</i>	Inês M. Almeida, João P.G. Magrinho, M. Beatriz Silva, Paulo A.F. Martins <i>Formability Limits by Local Buckling in Thin-Walled Structures</i>	Giorgio Patrizii, Denise Bellisario, Dounia Noqra, Leandro Iorio, Alice Proietti, Fabrizio Quadrini, Loredana Santo <i>Direct deposition of CF/PEKK composite shims on CF composite laminates for aeronautics</i>
16:20	Coffee break					

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MS	MS01	MS02	MS07	MS10/MS04	MS09	MS13
Chair	Merve Nur Dogu	Dmitry Ivanov	Mihaela Banu	Domenico Umbrello and Bernd-Arno Behrens	Matteo Strano and Miroslav Halilović	Luca Boccarusso and Margareta Coteață
16:40	Sara Bocchi, Mariangela Quarto, Gianluca D'Urso, Tommaso Pastore, Tommaso Persico <i>The location effect on IN625 fabricated by the laser powder bed fusion process</i>	Sepehr Simaafrookhteh, Canbek Giray, Jan Ivens, Stepan V. Lomov <i>Process-performance relationship of the CF/PA6 laminates</i>	Pasquale Guglielmi, Antonio Piccininni, Paola Ginestra, Angela Cusanno, Andrea Abeni, Valerio Minafra, Elisabetta Ceretti, Gianfranco Palumbo <i>Production By 3D Printing Of Modular Tools For Highly Customizable Hydroforming Of Light Sheet Metals</i>	Gabriel de Paiva Silva, Yessine Ayed, Bruno Lavissee, Guénaél Germain <i>Effect of different cryogenic lubrication methods on machinability of Ti6Al4</i>	Mafalda Gonçalves, António Andrade-Campos, Sandrine Thuillier <i>Inverse identification of anisotropic plasticity model parameters using FEMU and a heterogeneous test</i>	Dounia Noqra, Denise Bellisario, Leandro Iorio, Giorgio Patrizii, Alice Proietti, Fabrizio Quadrini, Loredana Santo <i>Manufacturing of shape memory composite hinges by additive manufacturing</i>
17:00	Benoit Revil-Baudard, Oana Cazacu, Sujaily Soto-Medina, Philip Flater <i>Effect of retained porosity due to additive manufacturing on dynamic loadings</i>	Vincenzo Iannone, Felice De Nicola, Giovangiuseppe Giusto, Mario Costantini, Giovanni Bruno, Pierpaolo Carlone <i>Mechanical Properties of AFP-Manufactured CF/PEEK vs CF/LM-PAEK Ring Coupons: Impact of Process Parameters on Shear Strength</i>	Annemarie Heiser, Jonas Werner, Martina Müller, Thomas Bergs, Alexander Schwedt, Emad Scharifi, David Bailly <i>SEM-EDX-based Characterization of Ductile Damage in Sheet Metal Forming of Al-Mg-Si alloy</i>	Mariateresa Caggiano, Maria Rosaria Saffiotti, Serafino Caruso, Giovanna Rotella <i>Evaluation of the environmental impact of different lubrorefrigeration conditions in the milling of Titanium alloy</i>	Lisa Germain, Mafalda Gonçalves, Thibault Barret, Antonio Andrade-Campos, Sandrine Thuillier <i>Virtual forming based on model calibration from heterogeneous tests</i>	Vincenzina Siciliani, Riccardo Pelaccia, Marco Alfano, Davide Castagnetti, Luca Raimondi, Alessandro Zanchi, Lorenzo Donati, Leonardo Orazi <i>Effect of surface preparation on adhesive bonding of CFRP compression molding laminates</i>
17:20	Ziguang Deng, Jieren Bai, Xiaolong Liu, Ying Yu, Yu Wang <i>Effect of Polymer Melt Flowability on Printability of Continuous Carbon Fiber Prepreg Filament</i>	Anatoly Koptelov, Xun Wu, Will Darby, Andrew Parsons, Ole Thomsen, Stephen Hallett, Lee Harper, Jonathan Belnoue <i>Modelling compaction-induced defects in overmoulding of thermoplastic composites</i>	Philipp Lennemann, A. Erman Tekkaya, Yannis P. Korkolis <i>Influence of forming temperature on damage and product performance in hot stamping of steel</i>	Giuseppe Serratore, Francesco Borda, Vito Basile, Luigino Filice <i>Life cycle assessment-guided design for sustainable microinjection molds</i>	Pedro Prates, Dario Mitreiro, Armando Marques, André Pereira, António Campos <i>Evaluating the Impact of 3D Constitutive Models on Predictive Performance of XGBoost for Material Parameter Identification</i>	Loredana Santo, Denise Bellisario, Alice Proietti, Giorgio Patrizii, Dounia Noqra, Fabrizio Quadrini, Leandro Iorio <i>Shape Memory Polymer Composite Device with Embedded Heater for One-Way Soft Actuation</i>

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17:40	<p>Eleonora Viola, Alessia Teresa Silvestri, Andrea El Hassanin, Antonino Squillace</p> <p><i>Optimization of the WAAM-CMT process for ER70S steel: influence of main parameters on the morphology of single tracks</i></p>	<p>Maria Veyrat Cruz-Guzman, Jonathan P.-H. Belnoue, Stephen J. Eichhorn, Adam Chaplin, John Grasmeyer, Dmitry S. Ivanov</p> <p><i>Creation of 'over-moulded' PEEK samples for interface bond strength predictions</i></p>	<p>Max Meerkamp, Jan Sommer, Martina Müller, Tim Herrig, Thomas Bergs, Lars Uhlmann</p> <p><i>Investigation of the influence of tool geometry on sheet thinning of bipolar plates in multi-stage embossing</i></p>	<p>Alessandro Trevisani, Andrea Abeni, Paola Serena Ginestra, Alessio Franchi, Alessandro Concoreggi, Mauro Silvestri, Elisabetta Ceretti</p> <p><i>Study of correlation between scraps and main process parameters in flow-forming alloy wheels production</i></p>	<p>Artem Alimov, Yuyao Jiang, Markus Gardill, Sebastian Härtel</p> <p><i>Integrating stochastic effects and uncertainties into inverse analysis of hot bulk forging processes through automated API-driven finite element simulations and machine learning</i></p>	<p>Roxana Hobjåla, Vasile Ermolai, Razvan Mititelu, Adelina Hrițuc, Elisaveta Craciun, Ioan Surugiu, Laurentiu Slatineanu, Cristian Bisog</p> <p><i>Abrasion resistance of some composite plastic materials</i></p>
18:00	<p>Gustavo Senna Carvalho, Gianni Campatelli, Davide Campanella, Rosa Di Lorenzo</p> <p><i>Wire Arc Additive Manufacturing Deposition with Solid-state Recycled Wire Processed via Friction Stir Extrusion</i></p>	<p>Maxence Coussy, Yvan Denis, Mehdi Marin, Simon Rieu, Damien Lecointe, Gaëlle Guyader</p> <p><i>Manufacturing tool optimization using a comprehensive multi-physical numerical workflow for high performance composites</i></p>	<p>Abdul Samad, Shamik Basak</p> <p><i>Formability Analyses During Multi-Stage SPIF Process Using Optimized Ductile Fracture Locus</i></p>	<p>Lena Koch, Min Chen, Holger Brüggemann, David Bailly, Emad Scharifi</p> <p><i>Numerical mapping of the surface roughness during skin-pass rolling of high strength aluminum alloys using the plane strain upsetting test</i></p>	<p>Henning Peters, Andreas Mazur, Ansgar Trächtler, Barbara Hammer</p> <p><i>Integration of a Digital Twin for Data-Driven Modeling of Punch-Bending Processes using the Asset Administration Shell</i></p>	<p>Dario De Fazio, Antonello Astarita, Luca Boccarusso, Alessia Serena Perna, Antonio Viscusi, Massimo Durante</p> <p><i>Analysis of Wear Resistance of Polymers Metallized by Cold Spray</i></p>
18:20	<p>Herrim Seidou, Catherine Blondiau, Olivier Dedry, Jérôme Tchuidjang, Anne Mertens</p> <p><i>Microstructural and Defects investigation of AlCrFeMnNi-based High Entropy Alloy fabricated via Laser Powder Bed Fusion</i></p>	<p>Yvan Denis, Nihad Siddig, Santiago Montagud Perez De Lis, Clement Freyssinet, Tanguy Moro, Sibin Saseendran, Estelle Castanet</p> <p><i>A Comprehensive Numerical Workflow to Simulate Post-Manufacture Shape Distortions in Composite Materials</i></p>	<p>Shiori Gondo, Maximilian A. Wollenweber, Hamed Dardaai, Joghana, Marlon Hahn, Yannis P. Korkolis, A. Erman Tekkaya</p> <p><i>Effect of Depth Increment on Damage in Incremental Sheet Forming</i></p>	<p>Michael Till, Julius Peddinghaus, Janina Siring, Johanna Uhe, Kai Brunotte</p> <p><i>Repression of Tool Surface Degradation in Hot Forging through Tailored Forming of Hybrid Dies</i></p>	<p>Tomás Parreira, Daniel Cruz, Armando Marques, Pedro Prates, Marta Oliveira, Diogo Neto, Abel Santos, Valdemar Fernandes, André Pereira</p> <p><i>Uncertainty Analysis in Sheet Metal Forming Processes: Troubleshooting with Machine Learning</i></p>	<p>Maria Rosaria Ricciardi, Vincenza Antonucci, Marco Russo, Lorena Affatato, Antonio Langella</p> <p><i>Development of a Casein-based Matrix and Mechanical Properties of Sustainable Composites from Cellulose and Cellulose Acetate: A Preliminary Study</i></p>

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18:40	<p>Lennart Grüger, Joanna Szyndler, Felix Jensch, Sebastian Härtel</p> <p><i>Porosity analysis of L-PBF manufactured AZ91 components</i></p>	<p>Massimo Di Pietro, Tommaso Mancina, Chiara Mignanelli, Michela Simoncini, Marina Andreozzi, Daniele Ciccarelli</p> <p><i>Effect of Process Parameters on Mechanical Properties of CFRP components obtained by Filament Winding process</i></p>	<p>Rakesh Kumar Mishra, Ashish Rajak</p> <p><i>Experimental, Analytical, and Numerical analysis of clinched-assisted electromagnetic forming of AA1100 sheet</i></p>	<p>Eduard Ortlieb, Hendrik Wester, Johanna Uhe, Bernd-Arno Behrens</p> <p><i>AI supported process optimisation in a multi stage multi material cup backward extrusion process</i></p>	<p>Abrar Salam Ebrahim, Brad Kinsey, Jinjin Ha</p> <p><i>Yld2004-18p Anisotropy Parameter Identification Using ANN Models and Variance-Based Input Selection</i></p>	<p>Antonio Formisano, Luca Boccarusso, Dario De Fazio, Giuseppe Irace, Massimo Durante</p> <p><i>Considerations on the Incremental Forming of Natural Fibre-Reinforced Polypropylene Composites</i></p>
19:00	Welcome cocktail					

Time	Thursday, 08/05/2025					
8:00	Registration					
8:40	Industrial prize <i>Room: Giove</i>					
Room	Giove	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS01	MS02	MS07	MS10	MS08	MS13
Chair	Antonino Squillace	Emmanuelle Vidal-Sallé	Ihab Ragai	Cédric Courbon	Ihab Ragai	Loredana Santo and Laurentiu Slatineanu
9:00	Valeria Palomba, Mohamed Chairi, Gabriele Marabello, Guido Di Bella <i>Thermal and Mechanical Performance of TPMS-Based Heat Exchangers Fabricated via Additive Manufacturing: A Focus on Gyroid Structures</i>	Jan-Erik Rath, Doran Nettig, Dominic R Palubiski, Thorsten Schüppstuhl, Dmitry S Ivanov <i>Single Point Incremental Forming of Multi-Matrix Continuously-Reinforced Composites: A Feasibility Study</i>	Pascal Heinzlmann, Michael Vöhringer, Kim Riedmüller, Mathias Liewald <i>Investigation of the Mechanical Properties of Embossed Materials under Static and Dynamic Loads</i>	Martina Panico, Eva Begemann, Andreas Gebhardt, Felix Hartmann, Tobias Herrmann, Luca Boccarusso, Antonio Langella <i>Smart Process Parameter Adaptation for Drilling of CFRP and AA7075 stacks</i>	Iacopo Bianchi, Archimede Forcellese, Tommaso Mancina, Chiara Mignanelli, Massimiliano Pieralisi, Tommaso Verdini <i>Contactless temperature measurements on FSWed joints in aluminum and magnesium alloys</i>	Philipp Damm, Daniel Groschupp, Lars Berg, Gunnar Meichsner, Matthias Hackert-Oschätzchen, Alexander Thielecke <i>Investigation of post-processing of additively manufactured stainless steel by electrochemical jet machining</i>
9:20	Gabriele Marabello, Mohamed Chairi, Guido Di Bella <i>Optimizing Additive Manufacturing of Sandwich Structures: effect of TPMS Cores on flexural properties</i>	Dominic R Palubiski, Janice M. Dulieu-Barton, Ian Hamerton, Dmitry S. Ivanov <i>Embedded element approach for the design of modular forming</i>	Bahman Arian, Werner Homberg, Lukas Kersting, Ansgar Trächtler, Julian Rozo Vasquez, Frank Walther <i>Advanced Thermomechanical Flow Forming: A Novel Approach to α'-Martensite Control for Enhanced Material Properties</i>	Viktor Böhm, Lorenzo Scandola, Jeremias Tschannerl, Christina Sunderkötter, Alexander Harms, Dennis Lauterbach, Wolfram Volk <i>Impact of Semi-Finished Part Properties and Process Configuration on the Final Geometry of Structural Free-Form Bent Profiles</i>	Austin Clark, Ihab Ragai, Gianluca Buffa, Livan Fratini <i>Feasibility of 5-Axis CNC Friction Stir Welding of Aluminum 3003-H14</i>	Samuele Piandoro, Fortunato Alessandro, Erica Liverani, Alessandro Ascari <i>Numerical Investigation of Pulsed Welding on Aluminum Alloy with a Dual-Region Laser Source: Exploring Non-Equal Pulse Parameters</i>
9:40	Khalil Homrani, Anthonin Demarbaix, Imi Ochana, François Ducobu <i>Framework for determining and simulating tensile properties of composite FDM printed parts</i>	Peter Hede Broberg, Esben Lindgaard, Adam Thompson, Jonathan Belnoue, Stephen Hallett, Brian Bak <i>Accurate framework for modelling defect formation in the forming of binder-stabilised preforms in wind turbine blade manufacturing</i>	Ricardo Trãn, Verena Psyk, Sven Winter, Dix Martin, Verena Kräusel <i>Process analysis and microstructural influences during contact heating of aluminium</i>	Shoichi Tamura, Tomohiro Kikuchi, Katsufumi Inazawa, Takashi Matsumura <i>Influence of Thinning Design on Cutting Process in Drilling</i>	Ahmed Dewidar, Alexej Verschinin, Norman Mohnfeld, Hendrik Wester, Sebastian Barton, Hans Jürgen Maier, Johanna Uhe <i>Experimental investigation of rotational friction welding for EN AW - 6082 - 20MnCr5 joints</i>	Francesco Giovanni Modica, Lara Rebaioli, Vito Basile, Alessandro Guida, Irene Fassi <i>Investigation of micro holes fabrication via Metal Extrusion (MEX) Additive Manufacturing for micro EDM manufacturing</i>

Time	Thursday, 08/05/2025					
Room	Giove	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS01	MS02	MS07	MS10	MS08	MS13
10:00	<p>Matteo Benvenuto, Marco Pizzorni, Chiara Mandolino, Luigi Benvenuto, Enrico Lertora</p> <p><i>Bonding between additively manufactured parts and CFRP: an investigation to increase mechanical performance by acting on joint geometry</i></p>	<p>Eduardo Guzman Maldonado, Nahiene Hamila</p> <p><i>An open-source object oriented finite element software for composite forming</i></p>	<p>Lasse Langstädtler, Christian Schenck</p> <p><i>Influence of wire properties on electrohydraulic forming metallic foils</i></p>	<p>Margaux Lorenzoni, Laurent Spitaels, Edouard Rivière-Lorphèvre, Jérémy Odent, Rachid M'Saoubi, Liam Cloëz, Michaël Fontaine, François Ducobu</p> <p><i>Finish milling of polylactic acid (PLA) 3D-printed parts: Influence of printing pattern and lubrication on final surface roughness</i></p>	<p>Tong Shen, Rafael Piccoli, Leonardo Hendler, Andre Barbosa, Uceu Suhuddin, Benjamin Klusemann</p> <p><i>Hybrid Joining of Cast Aluminum and Steel Using Refill Friction Stir Welding with Adhesive Sealant</i></p>	<p>Subhrajit Chand, Ravi Kumar Digavalli, Hariharan Krishnaswamy, Anoop C. R., Narayana Murty S. V. S.</p> <p><i>Numerical simulation of shell hydroforming of PH stainless steel sheet</i></p>
10:20	<p>Ioannis Christodoulou, Nikolaos Karkalos, Angelos Markopoulos</p> <p><i>Experimental study on the mechanical properties of ABS-Kevlar composite specimens during high-speed FFF</i></p>	<p>Bruno Storti, Adrien Le Reun, Steven Le Corre</p> <p><i>Multi-Scale Thermal Modeling of AFP In-situ Consolidation Processes for Thermoplastic Composites Using an Eulerian FEM approach</i></p>	<p>José Caicedo, Sandra Chevret, Idriss Tiba, Yessine Ayed, Tudor Balan</p> <p><i>Assessing the Influence of Modeling Choices on Finite Element Analysis for Robotic Single-Point Incremental Sheet Forming</i></p>	<p>Iñigo Rodriguez, Gregor Filipič, Mikel Cuesta, Gorka Ortiz-De-Zarate, Maja Remškar, Franci Pušavec, Pedro J. Arrazola</p> <p><i>Investigating Submicron Particle Generation in Machining: The Role of Coolants and Operational Conditions</i></p>	<p>Simone Panfiglio, Mohamed Chairi, Antonio Denaro, Gabriele Marabello, Chiara Borsellino, Guido Di Bella</p> <p><i>Optimization of Friction Stir Welding Parameters for Steel Joints in Shipbuilding using Machine Learning and Finite Element Analysis</i></p>	<p>Lianxi Hu</p> <p><i>Semi-solid thixoforming, microstructure, and mechanical properties of Al-6wt%Si alloy via liquid reaction sintering of elemental powders</i></p>
10:40	Coffee break					

Time	Thursday, 08/05/2025					
Room	Giove	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS01	MS02	MS04	MS10	MS08	MS13
Chair	Gokhan Ertugrul	James Sherwood	Bernd-Arno Behrens	Gorka Ortiz de Zarate	Ihab Ragai	Denise Bellisario and Luca Boccarusso
11:00	<p>Merve Nur Dogu, Muhannad Obeidi, Hengfeng Gu, Chong Teng, Dermot Brabazon</p> <p><i>Process Parameter Effects on Defect Formation, Surface Quality, and Microstructure of IN939 in Laser Powder Bed Fusion</i></p>	<p>C. Qian, M. Duhovic, D. Schommer, F. Gortner, A. Gebhard, T. Neumeyer, M. Olma, L. Schreyer, L. Kärger, M. Hohberg, H. Yuan, A.J. Imbsweiler, S. imaaafrookhteh, J. Ivens, S.V. Lomov, G. Bieleman, W. Groupe, F. Mahé, C. Binetruy, A. Kapshammer, Z. Major, D.S. Ivanov, J.P.-H. Belnoue, A. Koptelov, J. Jakimow, Y. Aitomaki</p> <p><i>The First European Benchmark Exercise on Squeeze Flow Testing of High-performance Carbon Fibre Sheet Moulding Compounds</i></p>	<p>Mattia Perin, Guido Berti</p> <p><i>Extreme Gradient Boosting (XGB)-driven simulator for radial-axial force estimation in ring rolling</i></p>	<p>Maria Rosaria Saffioti, Serafino Caruso, Mariateresa Caggiano, Giovanna Rotella</p> <p><i>The Importance of Adopting New Heat Source Models for Surface Functionalization, with a Focus on Industrial Systems</i></p>	<p>Malte Christian Schlichter, Özcan Harabati, Max Böhnke, Christian Roman Bielak, Mathias Bobbert, Gerson Meschut</p> <p><i>Experimental and numerical investigation of the influence of rolling-induced sheet metal deformation on SPR joints</i></p>	<p>Christoph Lerez, Chris Michaelis, Laura Zak, Lukas Blumenröhr, Matthias Hackert-Oschätzchen</p> <p><i>Investigation on the surface integrity in electrical discharge machining of Co-Cr-Mo</i></p>
11:20	<p>Alessia Teresa Silvestri, Andrea El Hassanin, Giorgio de Alteriis, Eleonora Viola, Rosario Schiano Lo Moriello, Antonino Squillace</p> <p><i>Advanced Multi-Sensor Monitoring system in Wire Arc Additive Manufacturing for enhanced process and parts production</i></p>	<p>Marcel Olma, Nils Meyer, Sergej Ilinzeer, Florian Wittemann, Constantin Krauß, Luise Kärger</p> <p><i>Experimental investigation to reduce knit line effects in C-SMC</i></p>	<p>Armin Piwek, Julius Peddinghaus, Johanna Uhe, Kai Brunotte</p> <p><i>Wear Effects on Coated Tools during the Alternating Forming of Case-Hardening Steel and Aluminium Wrought Alloy</i></p>	<p>Burnichon Vincent, Rech Joël, Courbon Cédric, Salvatore Ferdinando, Vieville Emilie, Masciantonio Ugo and Cruz-Garcia Miguel-Angel</p> <p><i>Comparative analysis of cutting fluids impact in machining operation: Standard vs dedicated tribometer</i></p>	<p>Viktoria Olfert, Maik Gollnick, Keke Yang, David Hein, Gerson Meschut, Jacob Krause</p> <p><i>Analysis of Fatigue Behaviour of Self-Piercing Riveted Joints Under Cyclic Loading Using Laser Vibrometry</i></p>	<p>Matteo Tognazzo, Rachele Bertolini, Andrea Ghiotti, Stefania Bruschi</p> <p><i>Enhancing Surface Quality and Corrosion Resistance of LPBF Nitinol Alloy Through Electrochemical Polishing</i></p>

Time	Thursday, 08/05/2025					
Room	Giove	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS01	MS02	MS04	MS10	MS08	MS13
11:40	Alessia Serena Perna, Fabio Scherillo, Antonino Squillace <i>Electrochemical machining of 3D printed NiTi alloy, a preliminary study</i>	Mario Castro, Luca Raimondi, Davide Serradimigni, Lorenzo Donati <i>Numerical analysis of the compression molding process of automotive structures by means of direct fiber simulation</i>	Claudia Glaubitz, Marcel Rothgänger, Julius Peddinghaus, Kai Brunotte, Eduard Ortlieb <i>Laser Triangulation for Quality Monitoring in Automated Series Forging Processes: A Method for Evaluating the Component Quality Feature 'Flash'</i>	Atsushi Ezura, Taisei Shinbo, Taisei Sasazaki, Naohiko Soma, Koutaro Fujiono, Takashi Matsuzawa, Shoichi Tamura <i>Effect of Ultrashort Pulse Laser Parameters on Periodic Structure and Friction Properties of Cemented Carbide Cutting Tool</i>	Franziska Schützelt, Christian Kraus, Welf-Guntram Drossel <i>Contour Extraction for Enhanced Quality Control: Image Analysis in Mechanical Joining</i>	Hans-Peter Schulze, Mathias Herzig, Oliver Kröning <i>Study on plasma electrolytic polishing (PeP) of deeper channel structures</i>
12:00	Martín Pérez Sánchez, Luis Domenech Ballester, Manuel Ibañez <i>Towards the 3D Printing of Inducible Materials</i>	Elias Gall, Sergej Ilinzeer, Frank Henning <i>Sheet Molding Compound with highly aligned fiber reinforcement: an experimental investigation</i>	Antonio Piccininni, Mattia Antonicelli, Angela Cusanno, Pasquale Guglielmi, Donato Sorgente, Gianfranco Palumbo <i>Investigation of the combined effect of friction and interstand stress on the work conditions of a two-stands reversing cold mill</i>	Gabriella Caputo, Francesco Passeggio, Giancarlo Ingenito, Sabato Inserra Imparato, Fatima Cicchiello <i>Innovative process to fabricate curved aluminium frames reducing buy to fly and geometrical distortions</i>	Anja Rautenstrauch, Mikhail Solovev, Andreas Kunke, Till Clausmeyer, Florian Gerstner <i>Simulation and modelling of press hardening and clinching using inductive heating</i>	Alessia Serena Perna, Alessia Auriemma Citarella, Fabiola De Marco, Luigi Di Biasi, Massimo Durante, Genoveffa Tortora, Antonio Viscusi <i>Optimizing Parameter Selection for Machine Learning Models to Predict Coating Characteristics in Cold Spray Processes on Polymeric Materials</i>
12:20	Carlo Bruni <i>Modeling the filament of magnesium alloys</i>	Michele Tropeano, Gianluca Gatti, Davide Serradimigni, Luca Raimondi, Lorenzo Donati <i>Investigating the strength of adhesively bonded SMC components</i>	Janina Siring, Donik Brahim, Jytte Möckelmann, Hendrik Wester, Johanna Uhe, Bernd-Arno Behrens <i>Numerical process design for hot forging of steel encased titanium workpieces</i>	Gursimranjot Singh Mavi, Ravinder Singh Joshi, Arshpreet Singh <i>Evaluations of in-process strains and residual stresses in Cp-Ti strips produced by large strain extrusion machining</i>	Jean-Patrick Ludwig, Seraphin Tsi-Nda Lontsi, Gerson Meschut, Jonas Neumann, Lukas Kappis, Christian Scharr, Wilko Flügge, Marion Merklein <i>Data Driven Prognosis of Clinch Joints in Multi-Material Design</i>	Linda Fleischer, Verena Psyk, Maik Linnemann, Martin Dix <i>Analysis and description of under-water pressure waves usable for forming applications</i>
12:40	Lunch					

Time	Thursday, 08/05/2025					
14:00	KN3 – Luise Karger – <i>The importance of forming simulation in the product development of high-performance composite parts</i> Chair: Pierpaolo Carlone Room: Giove					
Room	Giove	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS01	MS02	MS04	MS14	MS05	MS11
Chair	Gavin Chapman	Wouter Grove	Bernd-Arno Behrens	Raffaele D’Elia	Sandrine Thuillier and Sam Coppieters	Lionel Leotoing
14:40	Chukwuemeka Okolo, Katharina Eissing, Richard Williams, Felix Jensch, Omar Fergani, Sebastian Härtel <i>Investigation of the influence of AI-controlled process parameter adjustment on the mechanical properties of LBPF-manufactured parts</i>	Federico Bernardi, Davide Serradimigni, Tomasz Garstka, Luca Raimondi, Lorenzo Donati <i>Investigation of Cure Kinetic Model and Gel Point for a Vinyl Ester-Based SMC Material</i>	Benchmark Presentation <i>INTERMICRO: INTER-laboratory comparison benchmark for the characterization of MICROstructural grain growth and dynamic recrystallization kinetics of a single-phase metal</i>	Yun-Mei Luo, Luc Chevalier, Thanh Tung Nguyen <i>Prediction of Elastic Properties of Polyethylene Terephthalate after Biaxial Elongation Using a Multiscale Approach</i>	Martina Müller, Lena Koch, Niklas Fehlemann, Tim Herrig, David Bailly, Sebastian Münstermann, Thomas Bergs, Marina Kemperle <i>Analysis of Damage-Dependent Performance in Deep-Drawn Metal Components</i>	Shohei Kajikawa, Keitaro Oda, Takashi Kuboki, Soichi Tanaka, Masahiro Kondo, Mitsuru Abe, Masako Seki, Tsunehisa Miki <i>Simulation of Lateral Compressive Deformation of Wood by Finite Element Analysis with Lattice Model</i>
15:00	Mylene Cadete, Idalina Gonçalves, Victor Neto <i>On the morphing behavior of 4D printed PLA-based parts</i>	Christoph Schelleis, Luca Meckes, Frank Henning <i>Fiber migration in compression molded LFT-D materials: characterization proposal and first results</i>		Mario Emanuele Di Nardo, Francesco Napolitano, João Dias de Oliveira, Tiago Silva, Pietro Russo, Pierpaolo Carlone <i>Thermal effects on bead morphology in fused filament fabrication: a numerical approach to recycled PLA deposition</i>	Chanmi Moon, Sigmund Tronvoll, Torgeir Welo, Jun Ma <i>Flexible stretch bending of AA6082-T4 and WT profiles using reconfigurable tooling</i>	Jan Flesch, Florian Weber, Simon Burger, Yannis P. Korkolis, A. Erman Tekkaya <i>Material Characterization of Ferritic Stainless Steels at High Temperatures</i>
15:20	Ersilia Cozzolino, Austin Tiley, John Middendorf, Antonello Astarita <i>Effect of ring-shaped beam profiles in LPBF of Nickel alloy 718 on the surface roughness</i>	Gianluca Gatti, Michele Tropeano, Loris Giorgini, Lorenzo Donati, Francesco Della Torca, Gabriele Gentile, Laura Mazzocchetti <i>Evaluation of hydronitrogen plasma treatment to improve the bonding process of PCM composite material in automotive: a case study</i>	Aliakbar Emdadi, Felix Jensch, Joanna Szyndler, Hsuan-Po Huang, Sebastian Härtel, Sabine Weiß <i>Void closure behavior during hot forming of an Fe-Al alloy</i>	Roberto Spina, Nicola Gurrado <i>Linking surface appearance to MEX processing parameters</i>	Gabriela Vincze, Marilena Butuc, Rafael Santos <i>On the mechanical behavior of steels subjected to reverse loading</i>	Louis Roche, Houssem Badreddine, Carl Labergere, Mylene Leduc, Taha Niane Ngadia <i>Thermodynamic model based on Kelvin decompositions to predict the mechanical behavior of single-crytal superalloys after casting operation</i>

Time	Thursday, 08/05/2025					
Room	Giove	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS01	MS02	MS04	MS14	MS05	MS11
15:40	<p>Alexander Sviridov, Artem Alimov, Felix Jensch, Sergej Dubinin, Sebastian Härtel</p> <p><i>Influence of surface quality on performance of forging dies produced by additive manufacturing: the role of post-processing in LPBF-manufactured X55 steel</i></p>	<p>Vitantonio Esperto, Felice Rubino, Fausto Tucci, Pierpaolo Carlone</p> <p><i>Flow Front Tracking in SCRIMP Processes by Simultaneous Visual and Dielectric Monitoring</i></p>	<p>Niklas Gerke, Julius Peddinghaus, Eduard Ortlieb, Simon Peddinghaus, Hendrik Wester, Johanna Uhe, Bernd-Arno Behrens, Ludger Overmeyer, Laura Budde, Kai Biester, Jörg Hermsdorf, Nick Schwarz</p> <p><i>Forging of hybrid gears with wear-resistant surfaces using deposition-welded semi-finished products</i></p>	<p>Luigi Benvenuto, Enrico Lertora, Chiara Mandolfino, Matteo Benvenuto, Marco Pizzorni, Leonardo Ferretti</p> <p><i>Resistance welding of thermoplastic composites with Elium-impregnated carbon-fibre heating element</i></p>	<p>Tomomi Shiratori, Nanaka Takahashi, Suguri Furuhashi, Tatsuhiko Aizawa</p> <p><i>Punch edge control on crack propagation in piercing amorphous electrical steel sheets for motor cores</i></p>	<p>Karl Knaak, Oana Cazacu, Benoit Revil-Baudard</p> <p><i>Porosity evolution under shear loadings: new explanations</i></p>
16:00	<p>Gökhan Ertugrul, Aliakbar Emdadi, Sebastian Härtel</p> <p><i>Advancements in Iron Aluminide Alloy Processing: A Comparative Analysis with DED Alternatives</i></p>	<p>Philippe Olivier</p> <p><i>Design and manufacturing of thermoplastic matrix composite panels with overmoulded stiffening grids</i></p>	<p>Nico Wagner, Robert Tehel, Martin Dix, Joachim Regel, Christian Naumann</p> <p><i>Thermal and mechanical load on the die clamping system in the forging hammer</i></p>	<p>Giulia Zaniboni, Keltoum Oubellaouch, Riccardo Pelaccia, Vincenzina Siciliani, Leonardo Orazi, Barbara Reggiani</p> <p><i>Optical Scanning Application for Numerical Calibration of Strain Analysis on Injection Molded Rail Fastening Components</i></p>	<p>Guijia Li, Zinan Li, Junhe Lian</p> <p><i>A unified fracture model for cleavage and ductile fracture</i></p>	<p>Zhihao Wang, Dominique Guines, Lionel Leotoing</p> <p><i>Determination of a machine learning constitutive model from biaxial tensile test: application to thermal forming limits prediction of AA6061 sheets from shear to equi-biaxial tension</i></p>
16:20	Coffee break					
16:40	General Assembly Room: Giove					
	Bus transportation					
	Conference dinner					

Time	Friday, 09/05/2025					
8:00	Registration					
Room	Paestum	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS06	MS02	MS03	MS14	MS05	MS15
Chair	Javad Hazrati	Pierpaolo Carlone	Marco Negozio	Vincent Sobotka	Takayuki Hama and Gabriela Vincze	Giuseppe Ingarao
9:00	<p>Kaarel Siimut, Kasper Mygind Madsen, Ermanno Ceron, Brian Møller, Giuliano Bissacco, Chris Valentin Nielsen</p> <p><i>Experimental and Numerical Analysis of an Improved Adjustable Ironing Punch Design</i></p>	<p>Paolo De Sio, Vitantonio Esperto, Fausto Tucci, Pierpaolo Carlone</p> <p><i>Numerical Modeling of the Process Parameters in the Pultrusion of Preconsolidated Polypropylene/Glass Tapes</i></p>	<p>Srichana Sorawut, Tatsuya Funazuka, Takumi Urakawa, Tomomi Shiratori, Noriyasu Oguma, Numpon Mahayotsanun, Kuniaki Dohda</p> <p><i>Effect of Design of Pseudo-Porthole Die in Hot Extrusion of AA6063 Chips for Direct Recycling on Mechanical Properties of Products</i></p>	<p>Felix Frölich, Dominik Dörr, Alexander Jackstadt, Florian Wittmann, Luise Kärger</p> <p><i>Mechanical and kinetic characterization of additively manufactured PLA structures for improved process and warpage modeling</i></p>	<p>Aman Mohтта, Murugaiyan Amirthalingam, Uday Chakkingal</p> <p><i>Improvement in hole expansion ratios of Dual phase DP 980 steel for holes prepared by punching by micro-plasma heat treatment</i></p>	<p>Iacopo Bianchi, Archimede Forcellese, Luciano Greco, Massimiliano Peralisi, Tommaso Verdini, Alessio Vita</p> <p><i>Life Cycle Assessment of Metal Additive Manufacturing Processes: A Comparative study of Bound Metal Deposition and Binder Jetting Technologies</i></p>
9:20	<p>Marion Vogel, Keyu Luo, Birgit Vogel-Heuser, Marion Merklein</p> <p><i>Analysis of friction properties of DC04 using pin extrusion test with modified parameters</i></p>	<p>Adrien Le Reun, Arthur Levy, Henri-Alexandre Cayzac, Nicolas Lefevre, Vincent Sobotka, Steven Le Corre</p> <p><i>Continuous microtomography of the hot press consolidation of high performance CF/PEKK layered composites</i></p>	<p>Ivan Kniazkin, Ivan Kulakov, Nikolay Biba</p> <p><i>Comprehensive Analysis of Waving Defects in Aluminium Profile Extrusion</i></p>	<p>David Rodríguez Izquierdo, Carmine Borgia, Luigino Filice, Francesco Gagliardi</p> <p><i>Mechanical characterization of plaster-based blends modified with high-density polyurethane wastes</i></p>	<p>Mehmet Okan Görtan, Melih Tuyan, Ali Osman Gündoğdu</p> <p><i>Heat-Assisted Forming of High Strength Low Alloy S700MC Steel</i></p>	<p>Angela Daniela La Rosa, Chiara De Pizzol, Paola Ginestra, Davide Salandini</p> <p><i>Life cycle assessment applied to the cutlery sector in the case of steel fork production in Italy</i></p>
9:40	<p>Ermir Cakici, Werner Homberg</p> <p><i>Intrinsic Lubrication: A New Approach in the Context of the Deep Drawing Process</i></p>	<p>Nihad Siddig, Yvan Denis, Antoine De Fontgalland, Damien Lecointe, Philippe Le Bot</p> <p><i>Optimization of the Infusion Process with Acrylic Resin through Physics-based Simulation</i></p>	<p>Guilherme Poy Ignacio, Lars Rath, Uceu F. H. Suhuddin, Benjamin Klusemann</p> <p><i>Friction extrusion from AlMgSi machining waste at high extrusion ratio</i></p>	<p>Mustafa Altinisik, Martial Sauceau, Raffaele D'Elia, Romain Sescousse, Fabien Baillon, Guilhem Michon, Margot Chauvet</p> <p><i>Numerical modelling of thermoplastic CO2 assisted extrusion foaming: exploring the process-microstructure relationship</i></p>	<p>Daniel Dobras, Karol Jaśkiewicz, Maciej Zwierzchowski</p> <p><i>Electrically-assisted cyclic torsion of 5083 aluminium alloy</i></p>	<p>Angela Cusanno, Luca Ciacci, Antonio Piccininni, Pasquale Guglielmi, Francesco Arfelli, Donato Sorgente, Gianfranco Palumbo</p> <p><i>Optimizing sheet hydroforming process parameters with a focus on sustainability</i></p>

Time	Friday, 09/05/2025					
Room	Paestum	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS06	MS02	MS03	MS14	MS05	MS15
10:00	<p>Toni Chezan, Pieter Baart, Javad Hazrati, Johan Pilthammar</p> <p><i>Impact of Surface Engineering on Friction Stability and Forming Process Variability in Automotive Components</i></p>	<p>Clément Freyssinet, Tanguy Moro, Yvan Denis, Estelle Castanet, Sibin Saseendran</p> <p><i>Numerical workflow for skin model tolerancing applied to a composite study</i></p>	<p>Eren Can Sariyarlioglu, Jun Ma, Torgeir Welo</p> <p><i>Prediction of Charge-Weld Strength in Aluminum Extrusion Using Solid-State Welding Models</i></p>	<p>Francesco Napolitano, Ersilia Cozzolino, Alessandro Andrea Schiavo, Ilaria Papa, Antonello Astarita, Pietro Russo</p> <p><i>Life Cycle Assessment of Natural Fibers Recovery Techniques: A Comparison Between Mechanical and Chemical Procedures</i></p>	<p>Holger Aretz, Antonella Cometa, Ton van den Boogaard</p> <p><i>Strain-Rate Control in Hydraulic Bulge-Tests: Theory and Experiments</i></p>	<p>Chenyang Han, Enrico Simonetto, Andrea Ghiotti, Stefania Bruschi</p> <p><i>Evaluation of plasma cleaning efficiency for surface contaminant removal from AA7075 chips</i></p>
10:20	<p>Özgün Yurdakul, Aptullah Karakaş, Bülent Acar</p> <p><i>Experimental Investigation and Analysis Evaluations of the Wear Condition of AISI H13 Material</i></p>	<p>João Dias-de-Oliveira, Joaquin Pinho-da-Criz, Filipe Teixeira Dias</p> <p><i>Domain-Oriented Multiscale Optimization for Composite Materials</i></p>	<p>Harikrishnasinh Rana, Chang Chan, Suhuddin Uceu, Noomane Ben Khalifa, Benjamin Klusemann</p> <p><i>Comparison of different machine control modes during friction extrusion of AA2024</i></p>	<p>Henda Mrabti, Gaël Colomines, Sophie Quillard, Yves Béreaux</p> <p><i>A quantitative assessment of variability in impact Polypropylene mechanical recycling</i></p>		<p>Gianluca Parodo, Costanzo Bellini, Vittorio Di Cocco, Francesco Iacoviello, Luca Sorrentino, Sandro Turchetta</p> <p><i>Eco-Sustainable Sandwich Panels: Influence of Process Parameters on Adhesion and Mechanical Performance</i></p>
10:40	Coffee break					

Time	Friday, 09/05/2025					
Room	Paestum	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS06/MS01	MS12	MS03	MS14	MS08	MS15
Chair	Lander Galdos	Benjamin Klusemann	Eren Can Sariyarlioglu	Roberto Spina	Gianluca Buffa and Hinnerk Hagenah	Giuseppe Ingarao
11:00	Mehmet Okan Görtan, Ahmet Celal Topkaya, Yağmur Bayraktar <i>Effect of Hybrid Tool Surface Technologies on the Wear Performance of Thin Sheet Shearing Punches</i>	Amirali Hashemzadeh, Frederic Bock, Camile Hol, Koen Schutte, Antonella Cometa, Celal Soyarslan, Benjamin Klusemann, Ton van den Boogaard <i>An Analytical Predictor Machine Learning Corrector Scheme for Modeling Lateral Flow in Hot Strip Rolling</i>	Reeturaj Tamuly, Ravi Kumar Digavalli, Aravindan Sivanandam <i>Numerical Simulation And Experimental Validation of Warm Extrusion of A Novel Mg-Zn-Ca Alloy And Its Comparison With AZ31 Alloy</i>	Sourour Traouli, Steven Le Corre, Vincent Sobotka, Mael Péron, Jago Pridie <i>Anisotropic expansion and shrinkage behavior of thermosetting prepreg layups with respect to the compaction strategy</i>	Diego Rafael Alba, Calvin Ebert, Philip Reitingger, Christian Bonten, Mathias Liewald <i>Hybrid Forming of Metal-Polymer Gears: A Feasibility Assessment</i>	Riccardo Puleo, Giuseppe Ingarao, Livan Fratini <i>A new approach to improve the solid bonding occurrence in Friction Stir Consolidation process for chips recycling</i>
11:20	Pierre Gorez, Foad Naimi, Eric Feulvarch, Vincent Fridrici <i>Tribological behavior of IN718 obtained by SPS, compared to LMD and forged grades</i>	Mateusz Sitko, Kacper Pawlikowski, Konrad Perzynski, Lukasz Madej <i>Adaptive Mesh Refinement for Efficient Random Cellular Automata Finite Element Analysis in Complex Geometries</i>	Marco Negozio, Riccardo Pelaccia, Sara Di Donato, Barbara Reggiani, Lorenzo Donati, Adrian Lutey <i>Microstructure Prediction during Extrusion of AA6XXX Aluminum Alloy using Finite Element Simulation and Artificial Neural Network</i>	Sami Meksassi, Matthieu Zinet, Claire Barrès, Shihe Xin, M'Hamed Boutaous <i>Modeling and numerical simulation of a friction-compression process for recycling thermoplastics</i>	Aron Ringel, Karl Johann Tilly, David Bailly <i>Deep drawing effects of structured steel sheets with undercuts by cold rolling for interlocking joints</i>	Steffen Gabsa, Ansgar Nordieker, Werner Homberg, Timothy Daniel Goller, Guido Grundmeier <i>Influence of different oxide thicknesses on the friction induced and continuous solid-state recycling of aluminum scrap</i>
11:40	Tatsuhiko Aizawa, Tatsuya Fukuda, Takafumi Komatsu <i>Near-Net Forging of High Strength AISI316 Stainless Steel Wires Using Massively Nitrogen Supersaturated CoCrMo Superalloy Dies</i>	Mariusz Wermiński, Mateusz Sitko, Łukasz Madej <i>Reducing the influence of the computational domain discretisation on grain growth in the cellular automaton austenite-to-ferrite transformation model</i>	Sara Di Donato, Riccardo Pelaccia, Marco Negozio, Nicola Lai, Mohamad El Mehtedi, Barbara Reggiani, Lorenzo Donati <i>Effect of Material Characterization via Torsion Tests on the Accuracy of FEM Simulations in the Extrusion Process</i>	Pol Vanwersch, Tim Evens, Sylvie Castagne, Albert Van Bael <i>Injection molding simulations for the manufacturing of polymer hollow microneedles</i>	Pia Katharina Holtkamp, Christian Roman Bielak, Mathias Bobbert, Gerson Meschut <i>Simulation of the joining process of graded hardened multi-range capable rivets</i>	Muhammad Adnan, Simone Amantia, Riccardo Puleo, Giuseppe Ingarao, Livan Fratini <i>Recycling Magnesium Alloy AZ31 Chips via Friction Stir Consolidation: A Sustainable Approach.</i>

Time	Friday, 09/05/2025					
Room	Paestum	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS06/MS01	MS12	MS03	MS14	MS08	MS15
12:00	<p>Benchmark Presentation</p> <p><i>In-situ measurement of cuboid and single-track melt pool-temperatures during laser-powder bed fusion process (L-PBF) and post process measurement of resulting microstructures for thermal field and microstructure model validation</i></p>	<p>Marta C. Oliveira, Rúben Almeida, João P. Brito, José L. Alves</p> <p><i>Comparative analysis of a hypoelastic formulation with a hyperelastic one in the simulation of sheet metal forming processes</i></p>	<p>Sara Di Donato, Riccardo Pelaccia, Marco Negozio, Barbara Reggiani, Lorenzo Donati</p> <p><i>Modeling of Charge Welds Evolution through Cahn-Hilliard Equation for Interaction between Different Fluids: Experimental-Numerical Comparison with Industrial Case Studies</i></p>	<p>Sarantis Nikolettakis, George Vosniakos, Protesilaos Kostazos</p> <p><i>Determination of welding parameters for polypropylene rods on a prototype Friction Welding machine</i></p>	<p>Mohamad El Mehtedi, Pasquale Buonadonna, Noomane Ben Khalifa, Rayane El Mohtadi, Gianluca Marongiu, Francesco Aymerich, Mauro Carta</p> <p><i>Direct Hot Rolling as a Solid State Recycling process for green sheets production</i></p>	<p>Mauro Carta, Pasquale Buonadonna, Rayane El Mohtadi, Daniele Lai, Mohamad El Mehtedi</p> <p><i>Evaluation of the Environmental Impact of Direct Hot Rolling, ECAP and FSE for Aluminum Recycling</i></p>
12:20	<p>Enrico D'Auria, Vitantonio Esperto, Fausto Tucci, Felice Rubino</p> <p><i>Study of metallic particle bonding on thermoplastic substrate in Cold Spray</i></p>	<p>Maarten Hodzelmans, Stephen Hallett, Joris Remmers, Jonathan Belnoue</p> <p><i>Solid-shell element for modelling consolidation-induced wrinkle formation in laminar composites</i></p>	<p>Manuel Friedlein, Dominik Hoffmann, Michael Knaps, Marion Merklein</p> <p><i>Investigation of the repeatability of residual stress measurements using X-ray diffraction on cold extruded cups</i></p>	<p>Francisco Comino, José A. Martínez-Sánchez, Pablo E. Romero, Nicola Gurrado, Roberto Spina</p> <p><i>Thermo-mechanical properties of Polylactic Acid/Olive wood composite for Additive Manufacturing</i></p>	<p>Serafino Caruso, Francesco Borda, Luigino Filice</p> <p><i>Finite Element Analysis for Controlling Heat Affected Zone, Hardness and Grain Size Evolution in Plasma Arc Welding of AISI 304</i></p>	<p>Daniele Farioli, Lorenzo Marinelli, Matteo Strano</p> <p><i>Decoating Operations for Repurposing End-of-Life (EOL) Automotive Metal Sheets</i></p>
12:40	Lunch					
14:00	KN4 – Angela Daniela La Rosa – Life Cycle Sustainability Assessment for Sustainable Manufacturing Chair: Luigino Filice Room: Saturno					

Time	Friday, 09/05/2025					
Room	Paestum	Saturno	Mercurio	Nettuno	Medusa	Cassandra
MS	MS01	MS12	MS03	MS14	MS13	MS15
Chair	Anne Mertens	Lukasz Madej	Lorenzo Donati	Adrian Korycki	Matthias Hackert-Oschätzchen and Margareta Coteață	Romina Conte
14:40	Lukas Hof, Felix Frölich, Florian Wittemann, Luise Kärger <i>Modelling Bead Deposition in Material Extrusion Using the Smoothed Particle Hydrodynamics Framework PySPH</i>	Yuyao Jiang, Artem Alimov, Marcus Knaack, Sebastian Härtel, Markus Gardill <i>Data-driven approaches for predicting underfill in hot bulk forging processes</i>	Sindre Hovden, Johannes Kronsteiner, Amir Horr <i>Simulation of the evolution of microstructure during extrusion of an AA6082</i>	Adrian Korycki, Christian Garnier, France Chabert, Fabrice Carassus, Toufik Djilali <i>Enhancing weld in ultrasonic spot welding of carbon fibre-reinforced polyetheretherketone with polyetherimide energy director</i>	Murli Manohar Pandey, Erik Forke, Stefan Schubert, Toni Sprigode, Till Clausmeyer, Guntram Wagner <i>Parameter Identification for Deep Rolling of X120Mn12+VC Deposition Layer</i>	Dorothea Czempas, Sebastian Häner, Max Müller, David Bailly, Emad Scharifi <i>Comparative Analysis of Microstructure Evolution and Magnetic Properties in Strip-Cast vs. Conventionally Produced Non-Grain-Oriented Electrical Steel</i>
15:00	Alp Şık, Mahoor Mehdikhani, Stepan V. Lomov, Jeroen Soete, Hamed Tanabi, Baris Sabuncuoglu <i>Internal Structure of Short Fiber Reinforced Thermoplastics Manufactured with Fused Filament Fabrication</i>	Franz Reuther, Sven Winter, Verena Psyk, Verena Kräusel <i>Simulation of hollow embossing rolling for full-scale bipolar plates</i>	Baptiste Faivre, Jun Ma, Kai Zhang, Xiang Ma, Krzysztof Zaborowski <i>Effect of Si, Cu, Mn additions on the extrudability of potentially recycled Al-Zn-Mg alloys</i>	Matthis Balthazar, Nicolas Baudin, Jérôme Soto, Sébastien Gueroult, Vincent Sobotka <i>Improvement of thermal management of composites forming tools using lattice structures</i>	Johanna Waimann, Annika Schmidt, Christian F. Niordson <i>A novel phase-field description for the anodic dissolution during electrochemical machining</i>	Antonio Piccininni, Emanuele Fulco, Angela Cusanno, Pasquale Guglielmi, Donato Sorgente, Gianfranco Palumbo <i>Gas forming of a deep drawn component for reshaping purposes</i>
15:20	El Arbi Hajjioui, Foued Abroug, Thi-Phuong-Khanh Nguyen, Maher Baili, Kamal Medjaher, Lionel Arnaud <i>Ultrasonic Monitoring and Machine Learning Integration for Layer-by-Layer Defect Detection in PBF-L/M</i>	Adeline Fau, Mina Ghobrial, Philippe Seitier, Pierre Lagarrigue, Michel Galaup, Alain Daidié, Patrick Gilles <i>Enhancing Performance in Bolt Torque Tightening Using a Connected Torque Wrench and Augmented Reality</i>	Levy Bertoletti, Claudio Rossini, Luca Girelli, Lorenzo Montesano, Marcello Gelfi, Annalisa Pola <i>Optimization of the manufacturing process to minimize porosity in a CW614N brass sealing cap</i>	Domenyo Thierrie Assem, Tiphaine Mérian, France Chabert, Amevi Tongne, Kodjo Attipou, Adékunlé Salami <i>A Comparative Study of Recycled PET, PETG, and Virgin Opaque PET for material extrusion</i>	Baosheng Liu, Nan Guo, Yuansong Zeng, Ran Pan, Yunhe Chang, Zhiyong Li <i>Properties Evaluation on SiC Reinforced Aluminum Composite under a Novel Process of Cryogenic Treatment</i>	Ryo Kawase, Takashi Kuboki, Shohei Kajikawa <i>Injection Compression Molding of Wood Powder Mixed with Natural Binder</i>

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MS	MS01	MS12	MS03	MS14	MS13	MS15
15:40	<p>Mabrouk Derguini, Yannick Balcaen, Morgane Mokhtari, Joel Alexis"</p> <p><i>Investigation of Process-Geometry-Microstructure-Properties Relationships in Inconel 718 Single-Bead Deposits via LMD-w Additive Manufacturing</i></p>	<p>Sophie Stebner, Linghao Kong, Viktor Böhm, Ahmed Ismail, Boris Lohmann, Wolfram Volk, Sebastian Münstermann</p> <p><i>Barkhausen noise analysis for inline monitoring of residual stresses using a soft sensor for freeform bending with moveable die</i></p>	<p>Christian Dalheim Øien, Ole Runar Myhr, Geir Ringen</p> <p><i>Towards Hybrid Modelling of Aluminium Extrusion Mechanical Properties – a Univariate Representation of Artificial Aging</i></p>	<p>Barbara Palmieri, Fabrizia Cilento, Fausto Tucci, Antonio Viscusi, Alessia Serena Perna, Antonello Astarita, Michele Giordano, Eugenio Amendola and Alfonso Martone</p> <p><i>Feasibility of Infusion Processing for Carbon Fiber/Vitrimeric Epoxy Composites</i></p>	<p>Alexander Thielecke, Pascal Clauß, Maximilian Schröder, Gunnar Meichsner, Richard Petermann, Philipp Damm, Matthias Hackert-Oschätzchen</p> <p><i>Experimental derivation of process input parameters for electrochemical precision machining of additive and conventionally produced 316L stainless steel</i></p>	<p>Humberto Almeida, Andraž Maček, Miroslav Halilović</p> <p><i>Mode-I fracture toughness of flax/epoxy composites: A comparative study of autoclave and oven curing techniques</i></p>
16:00	<p>Özhan Kıtay, Yusuf Kaynak, Aqib Mashood Khan</p> <p><i>Enhanced Drilling Process to Improve Hole Quality of Additively Manufactured Inconel 718 Alloy</i></p>			<p>Thanh Tung Nguyen, Yun Mei Luo, Luc Chevalier</p> <p><i>Determination of Induced Modulus vs. Temperature via Free Blow Molding of PET Bottles</i></p>		