

ESAFORM 2018 - DETAILED PROGRAMME

(Building #19)

MS1 Composites forming processes

Monday, 23th April

Time	Sub. #	Presentation	Room
10:00 - 10:20	320	Irreversibility during forming process of woven reinforcements <i>Tarek Abdul Ghafour, Julien Colmars and Philippe Boisse</i>	Aula 5
10:20 - 10:40	160	Influences of Stitching Pattern on Forming Characteristics of Para-aramid Multi-layer Fabrics while Deformation <i>Mulat Abteu, François Bousso, Pascal Bruniaux, Carmen Loghin, Irina Cristian, Yan Chen and Lichuan Wang</i>	
10:40 - 11:00	42	Thermo-Hydroforming of a Fiber-Reinforced Thermoplastic Composites Considering Fiber Orientation <i>Hyunchul Ahn, Nicholas E. Kuuttila and Farhang Pourboghrat</i>	
11:00 - 11:20	211	Microwave Heating For Thermoplastic Composites - Could The Technology Be Used For Welding Applications? <i>Anais Barasinski, Hermine Tertrais, Stephane Bechtel and Francisco Chinesta</i>	
11:20 - 11:40	Coffee Break		
11:40 - 12:00	112	On the Inter-Stitch Interaction in Biaxial Non-Crimp Fabrics <i>David Colin, Sylvain Bel, Thorsten Hans and Mathias Hartmann</i>	Aula 5
12:00 - 12:20	144	Modelling Approach for Anisotropic Inter-Ply Slippage in FE Forming Simulation of Thermoplastic UD-Tapes <i>Dominik Dörr, Markus Faisst, Tobias Joppich, Christian Poppe, Frank Henning and Luise Kärger</i>	
12:20 - 12:40	107	A Novel Textile Characterization Approach Using An Embedded Sensor System And Segmented Textile Manipulation <i>Julian Fial, Stefan Carosella, Mario Langhein, Peter Middendorf and Patrick Wiest</i>	
12:40 - 13:00	299	Numerical Evaluation Of A Single Ellipsoid Motion In Newtonian And Power-Law Fluids <i>Julien Ferec, Gilles Ausias and Giovannantonio Natale</i>	
13:00 - 13:20	152	Prediction of wrinklings and porosities of thermoplastic composites after thermostamping. <i>Nahiene Hamila, Eduardo Guzman-Maldonado, Hu Xiong, Peng Wang, Philippe Boisse and Jerome Bikard</i>	

13:20 - 14:30	Lunch		
15:20 - 15:40	253	The Effect of Processing on the Mechanical Properties of Self-Reinforced Composites <i>Farzaneh Hassani, Peter Martin and Brian Falzon</i>	Aula 5
15:40 - 16:00	275	Joining strength performances of metal skin and CFRP core laminate structures realized by compression-curing process, with supporting experiments <i>Luca Quagliato, Changsoon Jang and Naksoo Kim</i>	
16:00 - 16:20	52	Meso-macro simulation of the woven fabric local deformation in draping <i>Akira Iwata, Takuya Inoue, Naim Naouar, Philippe Boisse and Stepan Lomov</i>	
16:20 - 16:40	137	Simulation Chain for Composite Part Curing With An Industrial Micro-Weave Oven <i>Yann Duplessis Kergomard, Erik Abenius, Hermine Tertrais, Anaïs Barasinski, Francisco Chinesta and Laurent Dufort</i>	
16:40 - 17:00	Coffee Break		
17:00 - 17:20	227	Characterising the Thermoforming Behaviour of Glass Fibre Textile Reinforced Thermoplastic Composite Materials <i>Moritz Kutzt, Bernhard Maron, Andreas Hornig, Michael Müller, Albert Langkamp and Maik Gude</i>	Aula 5
17:20 - 17:40	278	An Experimental Investigation On The Thermal Field Of Overlapping Layers In Laser-Assisted Tape Winding Process <i>S. M. Amin Hosseini, Ismet Baran and Remko Akkerman</i>	
17:40 - 18:00	153	Prediction of composites behavior undergoing an ATP process trough data-mining <i>Clara Argerich Martin, Angel Leon Collado, Ruben Ibanez Pinillo, Anaïs Barasinski, Emmanuelle Abisset-Chavanne and Francisco Chinesta</i>	
18:00 - 18:20	86	Failure prediction for the optimization of stretch forming aluminium-polymer laminate foils used for pharmaceutical packaging <i>Simon Müller and Sabine M. Weygand</i>	
18:20 - 18:40	167	Behavior of fiber reinforced metal laminates at high strain rate <i>Golam M. Newaz, Marco Sasso, Dario Amodio and Edoardo Mancini</i>	

Tuesday, 24th April

Time	Sub. #	Presentation	Room
09:30 - 09:50	44	RTM Simulations and Experiments For Fiber-reinforced Turbine Blades Forming <i>Tuan Linh Nguyen and Christophe Marchand</i>	Aula 5
09:50 - 10:10	218	Influence of the forming process on the mechanical behavior of a commingled carbon thermoplastic composite part. <i>Julien Patou, Emmanuel De Luycker, Rebecca Bonnaire, Thierry Cutard and Gérard Bernhart</i>	
10:10 - 10:30	85	A 2D modeling approach for fluid progression during FE-Forming Simulation of Continuously Reinforced Composites in wet compression moulding <i>Christian Poppe, Dominik Doerr, Frank Henning and Luise Kärger</i>	
10:30 - 10:50	74	Bias extension test on a bi-axial non-crimp fabric powdered with a non-reactive binder system <i>Jean Pourtier, Boris Duchamp, Maxime Kowalski, Xavier Legrand, Peng Wang and Damien Soulat</i>	
10:50 - 11:10	159	A Cyber Physical System Approach For Composite Part: From Smart Manufacturing To Predictive Maintenance <i>Giacomo Quaranta, Emmanuelle Abisset-Chavanne, Francisco Chinesta and Jean-Louis Duval</i>	
11:10 - 11:30	Coffee Break		
11:30 - 11:50	196	Influence Of Injection Molding Process Parameters On Fiber Concentration Distribution In Long Glass Fiber Reinforced Polypropylene <i>Andrea Scantamburlo, Luca Gazzola, Marco Sorgato and Giovanni Lucchetta</i>	Aula 5
11:50 - 12:10	194	Forming of Complex-Shaped Composite Tubes using Optimized Bladder-Assisted Resin Transfer Molding <i>Christian Schillfahrt, Ewald Fauster and Ralf Schledjewski</i>	
12:10 - 12:30	91	Comparison of Validation Methods for Forming Simulations <i>Alexander Schug, Gabriel Kapphan, Georg Bardl, Roland Hinterhölzl and Klaus Drechsler</i>	
12:30 - 12:50	79	Formability Study of Hybrid Carbon Fibre/Self-Reinforced Polypropylene Composites <i>Marina Selezneva, Yentl Swolfs, Noriyuk Hirano, Ichiro Taketa, Takuy Karaki, Ignaas Verpoest and Larissa Gorbatikh</i>	Aula 5
12:50 - 13:10	181	A shell approach for fibrous reinforcement forming simulations <i>Biao Liang, Julien Colmars and Philippe Boisse</i>	
13:10 - 13:30	182	Feasibility of Tailoring for press forming of Thermoplastic Composites <i>Jos Sinke</i>	
13:30 - 14:30	Lunch		

15:20 - 15:40	190	Impact behavior of basalt/epoxy composite: comparison between plan and twill text. <i>Ilaria Papa, Maria Rosaria Ricciardi, Vincenza Antonucci, Antonio Langella and Valentina Lopresto</i>	Aula 5
15:40 - 16:00	106	Consolidation Quality and Mechanical Performance of Stamp Formed Tailored Blanks Produced by Rapid AFP <i>Tjitse K. Slange, Laurent L. Warnet, Wouter J.B. Grouve and Remko Akkerman</i>	
16:00 - 16:20	125	Multi-scale modeling of non-uniform consolidation of uncured toughened unidirectional prepregs <i>Grégoire Sorba, Christophe Binetruy, Elena Syerko, Adrien Leygue, Sébastien Comas-Cardona, Jonathan Belhoue, Ollie Nixon-Pearson, Dmitry Ivanov, Stephen Hallett and Suresh Advani</i>	
16:20 - 16:40	18	Machine compliance in fabric compaction tests <i>Pedro Miguel Sousa and Stepan V. Lomov</i>	
16:40 - 17:00	Coffee Break		
17:00 - 17:20	235	Stitch Modeling of Non Crimp Fabric in Forming Simulation <i>Quentin Steer, Julien Colmars and Philippe Boisse</i>	Aula 5
17:20 - 17:40	247	Simulation of the Microwave Heating of a Thin Multilayered Composite Material: a Parameter Analysis <i>Hermine Tertrais, Anaïs Barasinski and Francisco Chinesta</i>	
17:40 - 18:00	177	Strain and Temperature Measurement in Pultrusion Processes by Fiber Bragg Grating Sensors <i>Fausto Tucci, Felice Rubino and Pierpaolo Carlone</i>	
Wednesday, 25th April			
Time	Sub. #	Presentation	Room
09:20 - 09:40	295	Stiffness and Poisson ratio in longitudinal compression of fiber yarns in meso-FE modelling of composite reinforcement forming <i>Dawei Wang, Naim Naouar, Emmanuelle Vidal-Salle and Philippe Boisse</i>	Aula 5
09:40 - 10:00	180	Characterization and Modeling of a Highly-Oriented Thin Film for Composite Forming <i>Kari White and James Sherwood</i>	
10:00 - 10:20	31	Studies of in-plane shear behaviour of braided composite reinforcements <i>Shenglei Xiao, Peng Wang, Damien Soulat, Xavier Legrand and Hang Gao</i>	
10:20 - 10:40	345	Analysis of Residual Transverse Stresses in a Thick UD Glass/Polyester Pultruded Profile Using Hole Drilling with Strain Gauge and Digital Image Correlation <i>Onur Yuksel, Ismet Baran, Nuri Ersoy and Remko Akkerman</i>	
10:40 - 11:00	206	Non-hoop winding effect on bonding temperature of Laser Assisted Tape Winding Process <i>Amin Zaami, Ismet Baran and Remko Akkerman</i>	
11:00 - 11:20	224	A Meta-Model Based Approach for Rapid Formability Estimation of Continuous Fibre Reinforced Components <i>Clemens Zimmerling, Dominik Dörr, Frank Henning and Luise Kaerger</i>	
11:20 - 11:40	Coffee Break		

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MS2 Extrusion and drawing

Monday, 23th April

Time	Sub. #	Presentation	Room
10:00 - 10:20	108	Numerical Investigations on the Lateral Angular Co-Extrusion of Aluminium and Steel <i>Bernd-Arno Behrens, Alexander Chugreev, Christian Klose, Susanne E. Thürer and Johanna Uhe</i>	Aula 6
10:20 - 10:40	294	Complex deformation routes for direct recycling of aluminium alloy scrap via industrial hot extrusion <i>Dimos Paraskevas, Karel Kellens, Carlos Kampen, Amirahmad Mohammadi and Joost Duflou</i>	
10:40 - 11:00	242	A FEM Simulation Study of the Solid State Hydrostatic Extrusion of PMMA <i>Andre L.M. Costa, Douglas B. Riffel, Wojciech Misiolek and Henry Valberg</i>	
11:00 - 11:20	304	A Sustainable solid state recycling of pure Aluminum by means of Friction Stir Extrusion process (FSE) <i>Mohamad El Mehtedi, Archimede Forcellese, Michela Simoncini and Stefano Spigarelli</i>	
11:20 - 11:40	Coffee Break		
11:40 - 12:00	150	Optimization of the nuclear fuel cladding tubes manufacturing thanks to the modeling of hot extrusion and cold pilgering processes <i>Alexis Gaillac and Celine Ly</i>	Aula 6
12:00 - 12:20	184	Investigation of Multi-Stage Cold Forward Extrusion Process Using Coupled Thermo-Mechanical Finite Element Analysis <i>Mehmet Okan Görtan</i>	
12:20 - 12:40	163	Experimental study of combined process of backward cup extrusion and piercing <i>Robinson Henry and Mathias Liewald</i>	
12:40 - 13:00	105	Modification of the Anisotropy and Strength Differential Effect of extruded AZ31 by Extrusion-Shear <i>Martin Jähnke, Felix Gensch and Sören Müller</i>	
13:00 - 13:20	30	Study on numerical simulation of asymmetric structure aluminum profile extrusion based on ALE method <i>Kun Chen, Yuan Qu, Siyi Ding, Changhui Liu and Fuyong Yang</i>	
13:20 - 14:30	Lunch		
15:20 - 15:40	219	A preliminary study on the extrusion of nickel-based spark plug electrodes by numerical simulation <i>Quentin Saby, Cédric Courbon, Ferdinando Salvatore, Dorian Fabre and Frédéric Romeyer</i>	Aula 6
15:40 - 16:00	214	Metal Flow and Thermal Conditions in Large Size Direct Aluminium Rod Extrusion <i>Henry Valberg and André L. M. Costa</i>	

ESAFORM 2018 - DETAILED PROGRAMME*(Building #19)***MS3 Forging and Rolling****Monday, 23th April**

Time	Sub. #	Presentation	Room
17:00 - 17:20	62	Ring rotational speed trend analysis by FEM approach in a Ring Rolling process <i>Gabriele Allegri, Luca Giorleo and Elisabetta Ceretti</i>	Aula 6
17:20 - 17:40	292	Suppression of Shear Banding in Rolling of Magnesium AZ31 <i>Kübra Atik and Mert Efe</i>	
17:40 - 18:00	94	Characterisation of the Joining Zone of Serially Arranged Hybrid Semi-Finished Components <i>Bernd-Arno Behrens, Alexander Chugreev and Tim Matthias</i>	
18:00 - 18:20	98	FE-Simulation of Hot Forging with an Integrated Heat Treatment with the Objective of Residual Stress Prediction <i>Bernd-Arno Behrens, Alexander Chugreev and Anna Chugreeva</i>	
18:20 - 18:40	88	A Complex Approach to Development of Forming Technology for Critical Aluminium-Alloy Parts Based on Simulation <i>Nikolay Biba, Artem Alimov, Andrey Shitikov and Sergei Stebunov</i>	

Tuesday, 24th April

Time	Sub. #	Presentation	Room
09:30 - 09:50	110	Characterization of hot bonding of bi-metal C45/25CrMo4 by plane strain compression test <i>Mohammed Enaim, Laurent Langlois, Sandra Chevret, Régis Bigot and Pierre Krumpipe</i>	Aula 6
09:50 - 10:10	76	A Sectionwise Defined Model for the Material Description of 100Cr6 in the Thixotropic State <i>Maiwand Hootak, Bernd-Arno Behrens and Alexander Chugreev</i>	
10:10 - 10:30	209	Influence of Heat-Pretreatments on the Microstructural and Mechanical Properties of Galfan-Coated Metal Bonds <i>Illia Hordych, Dmytro Rodman, Florian Nürnberger, Hans Christian Schmidt, Alejandro Gonzalez Orive, Werner Homberg, Guido Grundmeier and Hans Jürgen Maier</i>	
10:30 - 10:50	179	Features Of Structure Formation In The Low Modulus Quasi-Single Crystal From Zr-25%Nb Alloy At Cold Rolling <i>Margarita Isaenkova, Yuriy Perlovich, Vladimir Fesenko, Yan Babich, Maria Zaripova and Nickolay Krapivka</i>	
10:50 - 11:10	39	Analysis of factors influencing the bond strength in roll bonding processes <i>Kavan Khaledi, Stephan Wulfinghoff and Stefanie Reese</i>	
11:10 - 11:30	Coffee Break		
11:30 - 11:50	269	Experimental and Numerical Study of the Effect of Rolling Parameters on Shaft Deformation During the Longitudinal Rolling Process <i>Marek Kowalik and Tomasz Trzepiecinski</i>	Aula 6
11:50 - 12:10	273	The Method of Increasing the Depth of Plastically Deformed Layer in the Roller Burnishing <i>Marek Kowalik and Tomasz Trzepiecinski</i>	
12:10 - 12:30	100	Microstructure Based Procedure for Process Parameter Control in Rolling of Aluminium Thin Foils <i>Johannes Kronsteiner, Evgeniya Kabliman and Philipp-Christoph Klimek</i>	
12:30 - 12:50	203	Influence of the Coating Process on the Tribological Conditions during Cold Forging with a MoS₂ Based Lubricant <i>Marion Merklein, Hinnerk Hagenah and Robby Lorenz</i>	
12:50 - 13:10	271	A Finite Element Simulation and Experimental Investigation on of Fracture in Cold Forging of Aluminum Alloy <i>Amin Nikpour, Amir Amiri and Payam Saraeian</i>	Aula 6
13:10 - 13:30	61	A model for prediction of profile and flatness of hot and cold rolled flat products in four-high mills <i>Christian Overhagen and Paul Josef Mauk</i>	

Wednesday, 25th April

Time	Sub. #	Presentation	Room
11:40 - 12:00	41	Adapted nitriding processes for effective forging dies <i>Hanno Paschke, Kai Brunotte, Martin Weber, Markus Mejauschek, Alexander Nienhaus, Tom Petersen, Lennard Lippold, Martin Siegmund, Pierre Landgraf, Guenter Braeuer, Thomas Lampke and Bernd-Arno Behrens</i>	Aula 5
12:00 - 12:20	315	Influence of Al content on the corrosion resistance of micro-alloyed hot rolled steel <i>Abdullah Qaban and Sumsun Naher</i>	
12:20 - 12:40	254	Stable forming conditions and geometrical expansion of L-shape rings in ring rolling process <i>Luca Quagliato, Guido Berti, Dongwook Kim and Naksoo Kim</i>	
12:40 - 13:00	21	Evaluation of Interlocking Bond Strength between Structured 1.0338 Steel Sheets and High Pressure Die Cast AlMg5Si2 <i>Stefan Senge, Johannes Brachmann, Gerhard Hirt and Andreas Bührig-Polaczek</i>	

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MS4 Innovative joining by forming technologies

Monday, 23th April

Time	Sub. #	Presentation	Room
11:40 - 12:00	115	Joining of Polymer-Metal Lightweight Structures Using Self-Piercing Riveting (SPR) Technique: Numerical Approach and Simulation Results <i>Elias Amro and Afia Kouadri-Henni</i>	Aula 11
12:00 - 12:20	215	Integral blow moulding for cycle time reduction of CFR-TP aluminum contour joint processing <i>Daniel Barfuss, Veit Würfel, Raik Grützner, Maik Gude and Roland Müller</i>	
12:20 - 12:40	139	Interfacial characteristics of compression bonding joint <i>Xie Bijun, Sun Mingyue and Li Dianzhong</i>	
12:40 - 13:00	223	Bonding prediction in Friction Stir Consolidation of aluminum alloys: a preliminary study <i>Dario Baffari, Anthony P. Reynolds, Xiao Li and Livan Fratini</i>	
13:00 - 13:20	222	Welding abilities of UFG metals <i>Łukasz Morawiński, Tomasz Chmielewski, Lech Olejnik, Gianluca Buffa, Davide Campanella and Livan Fratini</i>	

Wednesday, 25th April

Time	Sub. #	Presentation	Room
09:20 - 09:40	124	Development of a Procedure for Forming Assisted Thermal Joining of Tubes <i>Hui Chen, Christian Löbbbe, Daniel Staupendahl and A. Erman Tekkaya</i>	Aula 8
09:40 - 10:00	348	Cold Pressure Welding Aluminium-Steel Blanks: Manufacturing Process and Electrochemical Surface Preparation <i>Hans Christian Schmidt, Werner Homberg, Alejandro Gonzalez Orive, Guido Grundmeier, Illia Hordych and Hans Jürgen Maier</i>	
10:00 - 10:20	249	Joining of Aluminum Sheet and Glass Fiber Reinforced Polymer using extruded pins <i>Romina Conte, Johannes Buhl, Giuseppina Ambrogio and Markus Bambach</i>	Aula 8
10:20 - 10:40	113	Friction Riveting as an Alternative Mechanical Fastening to Join Engineering Plastics <i>Francesco Gagliardi, Romina Conte, Renato Bentrovato, Giorgio Simeoli, Giuseppina Ambrogio and Pietro Russo</i>	
10:40 - 11:00	266	Modelling the Strength of an Aluminium-Steel Nailed Joint <i>Fabien Goldspiegel, Philippe Michel and Katia Mocellin</i>	
11:00 - 11:20	201	FSweld-bonded joint fatigue behaviour <i>Enrico Lertora, Chiara Mandolino, Carla Gambaro and Marco Pizzorni</i>	
11:20 - 11:40	Coffee Break		
11:40 - 12:00	59	In temperature forming of friction stir lap welds in aluminium alloys <i>Carlo Bruni, Marcello Cabibbo, Luciano Greco and Massimiliano Pieralisi</i>	Aula 8
12:00 - 12:20	186	Measuring the significance of pearlescence in real-time bottle forming <i>James Nixon, Gary Menary and Shiyong Yan</i>	
12:20 - 12:40	350	Determination of material distribution in heading process of small bimetallic bar <i>Wojciech Presz and Robert Cacko</i>	
12:40 - 13:00	122	Experimental Analysis of Mechanical Joints Strength by means of Energy Dissipation <i>Alexander Wolf, Remi Lafarge and Alexander Brosius</i>	
13:00 - 13:20	305	Interface Bonding of SA508-3 Steel Under Deformation and High Temperature Diffusion <i>Bin Xu, Chunjuan Shao and Mingyue Sun</i>	
13:20 - 14:20	Lunch		

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MS6 Laser Material Forming

Tuesday, 24th April

Time	Sub. #	Presentation	Room
15:20 - 15:40	323	Evaluation between residual stresses obtained by neutron diffraction and simulation for dual phase steel (DP600) welded by laser process <i>Kouadri-Henni Afia and Malard Benoit</i>	Aula 6
15:40 - 16:00	341	Investigating the effects of high power and high speed CO2 laser surface melting on the residual stresses and corrosion resistance of 316L stainless steel <i>Muhannad Ahmed Obeidi, Eanna McCarthy and Dermot Brabazon</i>	
16:00 - 16:20	81	Nd:YOV4 Laser surface texturing on DLC coating: effect of process parameters on tribological properties <i>Luca Giorleo, Gabriele Allegri, Elisabetta Ceretti, Giovina Marina La Vecchia, Lorenzo Montesano and Maria Surfaro</i>	
16:20 - 16:40	166	Some aspects of precise laser machining - Part 2: Experimental <i>Marcin Grabowski, Dominik Wyszynski and Robert Ostrowski</i>	
16:40 - 17:00	Coffee Break		
17:00 - 17:20	192	Laser surface texturing of polypropylene to increase adhesive bonding <i>Chiara Mandolino, Marco Pizzorni, Enrico Lertora and Carla Gambaro</i>	Aula 6
17:20 - 17:40	322	Experimental and numerical investigation of dual phase steels formability during laser-assisted hole-flanging <i>Seyed Amir Hossein Motaman, Krishna Komerla, Thomas Storms, Ulrich Prael, Christian Brecher and Wolfgang Bleck</i>	
17:40 - 18:00	29	Some aspects of precise laser machining - Part 1: Theory <i>Dominik Wyszynski, Marcin Grabowski and Piotr Lipiec</i>	

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MS7 Machinig and Cutting

Monday, 23th April

Time	Sub. #	Presentation	Room
10:00 - 10:20	20	High Productivity Mould Robotic Milling in Al-5083 <i>Iker Urresti, Pedro Jose Arrazola, Jose Angel Pelegay and Klaus Bonde Ørskov</i>	Aula 7
10:20 - 10:40	28	Effects of Specialized Drill Bits on Hole Defects of CFRP Laminates <i>Chao Li and Jinyang Xu</i>	
10:40 - 11:00	55	High Speed Machinability of the Aerospace Alloy AA7075 T6 Under Different Cooling Conditions <i>Stano Imbrogno, Sergio Rinaldi, Asier Gurruchaga Suarez, Pedro José Arrazola and Domenico Umbrello</i>	
11:00 - 11:20	58	On the Formation of Adiabatic Shear Bands in Titanium Alloy Ti17 Under Severe Loading Conditions <i>Houssemeddine Ben Boubaker, Yessine Ayed, Charles Mareau and Guenael Germain</i>	
11:20 - 11:40	Coffee Break		
11:40 - 12:00	165	Application of High Speed Machining technology in aviation <i>Paweł Bałon, Janusz Szostak, Bartłomiej Kiełbasa, Edward Rejman and Robert Smusz</i>	Aula 7
12:00 - 12:20	217	Analysis of Surface Integrity in Machining of AISI 304 Stainless Steel under Various Cooling and Cutting Conditions <i>Fritz Klocke, Benjamin Döbbeler, Sven Lung, Tobias Seelbach and I.S. Jawahir</i>	
12:20 - 12:40	343	Orthogonal Cutting of Laser Beam Melted Parts <i>Volker Schulze, Frederik Zanger and Elisa Götze</i>	
12:40 - 13:00	155	Experimental evaluation of tool run-out in micromilling <i>Aldo Attanasio and Elisabetta Ceretti</i>	
13:00 - 13:20	334	Evaluation of the Correctness of the Feed Selection Based on the Analysis of Chip's Shape <i>Jaroslav Chodor, Leon Kukielka, Pawel Kaldunski, Lukasz Bohdal, Radoslaw Patyk and Agnieszka Kulakowska</i>	
13:20 - 14:30	Lunch		
15:20 - 15:40	225	New Numerical Approach For The Modelling Of Machining Applied To Aeronautical Structural Parts <i>Pierrick Rambaud and Katia Mocellin</i>	Aula 7
15:40 - 16:00	56	3D FE Simulation of Semi-Finishing Machining of Ti6Al4V Additively Manufactured by Direct Metal Laser Sintering <i>Stano Imbrogno, Sergio Rinaldi, Antonio Raso, Alberto Bordin, Stefania Bruschi and Domenico Umbrello</i>	
16:00 - 16:20	102	2D Simulations of Orthogonal Cutting of CFRP: Effect of Tool Angles on Parameters of Cut and Chip Morphology <i>Mehdi Benhassine, Edouard Riviere Lorphevre, François Ducobu, Pedro-Jose Arrazola, Pierre Gobin, David Dumas, Vinay Madhavan and Ohian Aizpuru</i>	
16:20 - 16:40	280	Numerical Simulation of Machining Distortions on a Forged Aerospace Component following a One and a Multi-Step Approaches <i>Antonio Del Prete, Rodolfo Franchi, Fabrizio Antermite and Iolanda Donatiello</i>	
16:40 - 17:00	Coffee Break		
17:00 - 17:20	164	Tool Wear Analysis During Duplex Stainless Steel Trochoidal Milling <i>Paulo Amaro, Pedro Ferreira and Fernando Simões</i>	Aula 7
17:20 - 17:40	168	Estimation of the Influence of Tool Wear on Force Signals: a Finite Element Approach in AISI 1045 Orthogonal Cutting <i>Lucas Equeter, François Ducobu, Edouard Rivière-Lorphèvre, Mustapha Abouridouane, Fritz Klocke and Pierre Dehombreux</i>	
17:40 - 18:00	293	High Performance Cutting Using Micro-textured Tools and Low Pressure Jet Coolant <i>Toshiyuki Obikawa, Ryuta Nakatsukasa, Mamoru Hayashi and Tatsumi Ohno</i>	Aula 7
18:00 - 18:20	308	Cutting process simulation of flat drills <i>Takashi Matsumura and Shoichi Tamura</i>	
18:20 - 18:40	309	Effect of Micro Scale Texturing on the Cutting Tool Performance <i>D Vasumathy and Anil Meena</i>	

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Time	Sub. #	Presentation	Room
09:30 - 09:50	262	Corner Smoothing of 2D Milling Toolpath Using B-spline Curve by Optimizing the Contour Error and the Feedrate <i>Abdullah Özcan, Edouard Rivière-Lorphèvre and François Ducobu</i>	Aula 7
09:50 - 10:10	251	Optimization Of Turning Process Through The Analytic Flank Wear Modelling <i>Antonio Del Prete, Rodolfo Franchi and Domenico De Lorenzis</i>	
10:10 - 10:30	342	Burnishing Rolling Process of the Surface Prepared in the Turning Process <i>Agnieszka Kulakowska, Kukielka Leon, Radoslaw Patyk, Jaroslaw Chodor, Lukasz Bohdal, Pawel Kaldunski and Krzysztof Kukielka</i>	
10:30 - 10:50	339	Experimental and Numerical Researches of Duplex Burnishing Process in Aspect of Achieved Productive Quality of the Product <i>Radosław Patyk, Leon Kukielka, Pawel Kaldunski, Lukasz Bohdal, Jaroslaw Chodor, Agnieszka Kulakowska and Krzysztof Kukielka</i>	
10:50 - 11:10	200	Process Based Analysis Of Manually Controlled Drilling Processes For Bone <i>Uwe Teicher, Anas Ben Achour, Andreas Nestler, Alexander Brosius and Günter Lauer</i>	
11:10 - 11:30	Coffee Break		
11:30 - 11:50	207	Study of tapping process of CFRP/AA7075 stacks <i>Alessio D'Orazio, Mohamad El Mehtedi, Archimede Forcellese, Alessia Nardinocchi and Michela Simoncini</i>	Aula 7
11:50 - 12:10	257	A new optimization tool path planning for 3-axis end milling of free-form surfaces based on efficient machining intervals. <i>Duy Duc Vu, Frédéric Monies and Walter Rubio</i>	
12:10 - 12:30	197	Experimental Investigation of Edge Hardening and Edge Cracking Sensitivity of Burr-free Parts <i>Sergei Senn and Mathias Liewald</i>	
12:30 - 12:50	337	3D Finite Element Modelling of Sheet Metal Blanking Process <i>Lukasz Bohdal, Leon Kukielka, Jaroslaw Chodor, Agnieszka Kulakowska, Radoslaw Patyk, Pawel Kaldunski and Krzysztof Kukielka</i>	

ESAFORM 2018 - DETAILED PROGRAMME*(Building #19)***MS8 Nanostructured materials fabrication and applications****Tuesday, 24th April**

Time	Sub. #	Presentation	Room
17:00 - 17:20	279	Dynamics of Solid Nano-particles near a Liquid Liquid Interface <i>Ali Daher, Amine Ammar and Abbas Hijazi</i>	Aula 7
17:20 - 17:40	169	Thermal Behavior of Copper Processed by ECAP at Elevated Temperatures <i>Viktor Gonda</i>	

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MS9 New and advanced numerical strategies for material forming

Tuesday, 24th April

Time	Sub. #	Presentation	Room
15:20 - 15:40	226	Reshaping of Large aeronautical structural parts: A simplified approach <i>Ramiro Francisco Mena Andrade, José Vicente Aguado Lopez, Stéphane Guinard and Antonio Huerta</i>	Aula 7
15:40 - 16:00	33	Thermodynamically consistent data-driven computational mechanics <i>David Gonzalez, Francisco Chinesta and Elias Cueto</i>	
16:00 - 16:20	185	A nodally condensed SUPG formulation for free-surface computation of steady-state flows constrained by unilateral contact - Application to rolling. <i>Shitij Arora and Lionel Fourment</i>	
16:20 - 16:40	51	Model & system learners, optimal process constructors and kinetic theory-based goal-oriented design: a new paradigm in materials and processes informatics <i>Francisco Chinesta, Emmanuelle Abisset, Elias Cueto and Jean Louis Duval</i>	

Wednesday, 25th April

Time	Sub. #	Presentation	Room
09:20 - 09:40	156	Data-Driven approach to Plasticity Identification <i>Rubén Ibáñez Pinillo, Emmanuelle Abisset-Chavanne, Elías Cueto, Pierre Guillormini, Amine Ammar, Antonio Huerta and Francisco Chinesta</i>	Aula 6
09:40 - 10:00	134	Multiphysical FE-analysis of a Front-end Bending Phenomenon in a Hot Strip Mill <i>Joonas Ilmola, Oskari Seppälä, Olli Leinonen, Aarne Pohjonen, Jari Larkiola, Juha Jokisaari and Eero Putaansuu</i>	
10:00 - 10:20	66	Adaptive Temporal Refinement in Injection Molding Simulations <i>Violeta Karyofylli, Mauritius Schmitz, Christian Hopmann and Marek Behr</i>	
10:20 - 10:40	240	Computational cost of two alternative formulations of Cahn-Hilliard equations <i>Maciej Paszynski, Grzegorz Gurgul, Marcin Łoś and Danuta Szeliga</i>	
10:40 - 11:00	71	Computer Simulations of Austenite Decomposition of Microalloyed 700 MPa Steel During Cooling <i>Aarne Pohjonen, Joni Paananen, Juho Mourujärvi, Timo Manninen, Jari Larkiola and David Porter</i>	
11:00 - 11:20	346	Rupture Model Based on Non-Associated Plasticity <i>Adrien Pradeau, Jeong Yoon, Sandrine Thuillier, Yanshan Lou and Shunying Zhang</i>	
11:20 - 11:40	Coffee Break		
11:40 - 12:00	291	Experimental validation of a new heterogeneous mechanical test design <i>José Aquino, António Andrade-Campos and Sandrine Thuillier</i>	Aula 6
12:00 - 12:20	237	Numerical modelling of heat transfer in a cavity due to liquid jet impingement <i>Trevor Smyth, Gary Menary and Marco Geron</i>	
12:20 - 12:40	230	Improved Failure Prediction in Forming Simulations through Pre-Strain Mapping <i>Siddharth Upadhy, Daniel Staupendahl, Martin Heuse and Erman A Tekkaya</i>	
12:40 - 13:00	243	Explicit and implicit Springback Simulation In Sheet Metal Forming Using Fully Coupled Ductile Damage And Distortional Hardening Model. <i>Michel Yetna N'Jock, Housseem Badreddine, Carl Labergere, Khemais Saanouni and Yue Zhenming</i>	

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MS10 Non-conventional processes

Tuesday, 24th April

Time	Sub. #	Presentation	Room
09:30 - 09:50	53	Numerical simulation of stress distribution in Inconel 718 components realized by Metal Injection Molding during supercritical debinding <i>Aboubakry Agne and Thierry Barrière</i>	Aula 8
09:50 - 10:10	126	Study of the Joining of Polycarbonate Panels in Butt Joint Configuration Through Friction Stir Welding <i>Antonello Astarita, Luca Boccarusso, Luigi Carrino, Massimo Durante, Fabrizio Memola Capece Minutolo and Antonino Squillace</i>	
10:10 - 10:30	187	Analysis of Spring-in in U-shaped Composite Laminates: Numerical and Experimental Results <i>Costanzo Bellini, Luca Sorrentino, Wilma Polini and Gianluca Parodo</i>	
10:30 - 10:50	213	Deposition of Aluminum Coating on Bio-composite Laminates <i>Luca Boccarusso, Antonio Viscusi, Massimo Durante, Antonello Astarita, Dario De Fazio, Raffaele Sansone, Antonio Caraviello and Luigi Carrino</i>	
10:50 - 11:10	114	Single Point Incremental Forming: Formability of PC Sheets <i>Antonio Formisano, Luca Boccarusso, Luigi Carrino, Francesco Lambiase and Fabrizio Memola Capece Minutolo</i>	
11:10 - 11:30	Coffee Break		
11:30 - 11:50	221	Improvement of the Mechanical Properties of Reinforced Aluminum Foam Samples <i>Antonio Formisano, Andrea Barone, Luigi Carrino, Dario De Fazio, Antonio Viscusi, Massimo Durante and Antonio Langella</i>	Aula 8
11:50 - 12:10	93	Formability of Paperboard during Deep-Drawing with Local Steam Application <i>Wilken Franke, Philipp Stein, Peter Groche and Sven Dörsam</i>	
12:10 - 12:30	259	A new model of elementary passes taking into account the firing angle in abrasive water jet machining of titanium alloy <i>Van Hung Bui, Patrick Gilles, Guillaume Cohen and Walter Rubio</i>	
12:30 - 12:50	204	The experimental research on electrodischarge drilling of high aspect ratio holes in Inconel 718 <i>Piotr Lipiec, Magdalena Machno and Sebastian Skoczypiec</i>	
12:50 - 13:10	178	Laser Engraving as a Result of Applying Reverse Engineering <i>Andrei Mihalache, Gheorghe Nagit, Marius Ionut Ripanu, Laurențiu Slătineanu, Oana Dodun and Margareta Coteață</i>	
13:30 - 14:30	Lunch		
15:20 - 15:40	174	Thermo-mechanical modeling of laser treatment on titanium cold-sprayed coatings <i>Valentino Paradiso, Felice Rubino, Fausto Tucci, Antonello Astarita and Pierpaolo Carlone</i>	Aula 8
15:40 - 16:00	231	Local Density Measurement of Additive Manufactured Copper Parts by Instrumented Indentation <i>Loredana Santo, Fabrizio Quadrini, Denise Bellisario, Giovanni Matteo Tedde, Mariano Zarcone, Gildo Di Domenico, Pierpaolo D'Angelo and Diego Corona</i>	
16:00 - 16:20	205	Research on electrodischarge drilling of polycrystalline diamond with increased gap voltage <i>Sebastian Skoczypiec, Wojciech Bizoń and Agnieszka Żyra</i>	
16:20 - 16:40	351	Dynamic effect in ultrasonic assisted micro-upsetting <i>Wojciech Presz</i>	Aula 8
16:40 - 17:00	Coffee Break		
17:00 - 17:20	12	Grading Technologies for the Manufacture of Innovative Cutting Blades <i>Tim Rostek and Werner Homberg</i>	Aula 8
17:20 - 17:40	57	Application of magnetic pulse forming to aeronautic small pieces <i>Sow Cheikh Tidiane, Bazin Grégoire, Daniel Dominique, Bon Emmanuel, Priem Didier and Racineux Guillaume</i>	
17:40 - 18:00	260	Numerical Investigations on the Rebound Phenomena and the Bonding Mechanisms in Cold Spray Processes <i>Antonio Viscusi</i>	

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(Building #19)

MS11 Optimization and inverse analysis in forming

Wednesday, 25th April

Time	Sub. #	Presentation	Room
09:20 - 09:40	60	Identification of Material Parameters for Plasticity Models: A Comparative Study on the Finite Element Model Updating and the Virtual Fields Method <i>João Martins, Sandrine Thuillier and António Andrade-Campos</i>	Aula 7
09:40 - 10:00	265	Metamodeling and Optimization of the THF Process with Hammering <i>Marco Bucconi and Matteo Strano</i>	
10:00 - 10:20	151	Illustration of an improved non-invasive form finding algorithm <i>Michael Caspari, Philipp Landkammer and Paul Steinmann</i>	
10:20 - 10:40	65	CFD-Based Optimization In Plastics Extrusion <i>Sebastian Eusterholz and Stefanie Elgeti</i>	
10:40 - 11:00	36	Comparison of Optimization Algorithms for the Slow Shot Phase in HPDC <i>Markus Frings, Marek Behr, Stefanie Elgeti and Benjamin Berkels</i>	
11:00 - 11:20	72	Approach to a manufacture-oriented modeling of bent tubes depending on the curvature distribution during three-roll-push-bending <i>Sebastian Groth, Bernd Engel and Peter Frohn</i>	
11:20 - 11:40	Coffee Break		
11:40 - 12:00	87	On the Design of Innovative Heterogeneous Tests Using a Shape Optimization Approach <i>José Aquino, António Andrade-Campos and Sandrine Thuillier</i>	Aula 7
12:00 - 12:20	326	Multi objective genetic algorithm to optimize the local heat treatment of an hardenable aluminum alloy <i>Antonio Piccininni, Gianfranco Palumbo, Andrea Lo Franco, Donato Sorgente, Luigi Tricarico and Giuseppe Russello</i>	
12:20 - 12:40	158	Experimental setup for characterization of material parameters for high speed forming and cutting via inverse simulation <i>Christian Scheffler, Verena Psyk, Maik Linnemann, Marc Tulke, Alexander Brosius and Dirk Landgrebe</i>	
12:40 - 13:00	7	Optimising Mechanical Properties of Hot Forged Nickel Superalloy 625 Components <i>Nthambe Singo, John Coles, Malgorzata Rosochowska, Himanshu Lalvani, Jose Hernandez and William Ion</i>	
13:00 - 13:20	10	Determination of Optimal Tool Parameters for Hot Mandrel Bending of Pipe Elbows <i>Dmitri Tabakajew and Werner Homberg</i>	

ESAFORM 2018 - DETAILED PROGRAMME
(Building #19)
MS12 Polymer Processing and Thermomechanical Properties

Monday, 23th April

Time	Sub. #	Presentation	Room
10:00 - 10:20	234	Viscoelastic Stability in a Single-Screw Channel Flows <i>Yao Agbessi, Liangxiao Bu, Yves Beraux and Jean-Yves Charneau</i>	Aula 8
10:20 - 10:40	229	The Development of Thermoplastic Fibre based Reinforcements for the Rotational Moulding Process <i>David Noel Castellanos Alemán, Mark McCourt, Mark Kearns, Peter Martin and Joseph Butterfield</i>	
10:40 - 11:00	54	Identification of a Thermo-elasto-viscoplastic Behavior Law for the Simulation of Thermoforming of High Impact Polystyrene <i>Qualid Atmani, Boussad Abbès, Fazilay Abbès, Yuming Li and Serge Batkam</i>	
11:00 - 11:20	335	A comprehensive study of bubble inflation in vacuum-assisted thermoforming based on whole-field strain measurements <i>Abderrahmane Ayadi, Marie France Lacrampe and Patricia Krawczak</i>	
11:20 - 11:40	Coffee Break		
11:40 - 12:00	129	Cost-Effective Computational Method for Radiation Heat Transfer in Semi-Crystalline Polymers <i>Sinan Boztepe, Olivier De Almeida, Rémi Gilblas, Yannick Le Maout and Fabrice Schmidt</i>	Aula 8
12:00 - 12:20	191	Thermal Homogeneity of Plastication Processes in Single- Screw Extruders <i>Liangxiao Bu, Yao Agbessi, Yves Beraux and Jean-Yves Charneau</i>	
12:20 - 12:40	148	The Effects of polymers' visco-elastoplastic properties on the micro cavities filling step of hot embossing process <i>Gang Cheng and Thierry Barriere</i>	
12:40 - 13:00	11	Through-Transmission Laser Welding of glass fibre composite: experimental light scattering identification <i>Benoit Cosson, André Chateau Akué Asséko and Myriam Dauphin</i>	
13:00 - 13:20	216	Heat Transfer Analytical Models for the Rapid Determination of Cooling Time in Semi-crystalline Thermoplastic Injection Molding and Experimental Validation <i>Didier Delaunay, Baptiste Pignon, Nicolas Boyard and Vincent Sobotka</i>	
13:20 - 14:30	Lunch		

15:20 - 15:40	210	Study Of Bulk And Confined Ethylene-Vinyl Alcohol Crystallization <i>Clément Freymond, Alain Guinault, Sébastien Roland, Matthieu Gervais and Cyrille Sollogoub</i>	Aula 8
15:40 - 16:00	171	Experimental study of heat transfer around molds inside a model autoclave <i>Taleb Ghamlouch, Stéphane Roux, Nicolas Lefèvre, Jean-Luc Bailleul and Vincent Sobotka</i>	
16:00 - 16:20	228	Optimisation of Multi-layer Rotationally Moulded Foamed Structures <i>Alex J. Pritchard, Mark P. McCourt, Mark P. Kearns, Peter J. Martin and Eoin Cunningham</i>	
16:20 - 16:40	193	Influence of the Stretch Wrapping Process on the Mechanical Behavior of a Stretch Film <i>Daniel Klein, Markus Stommel and Johannes Zimmer</i>	
16:40 - 17:00	Coffee Break		
17:00 - 17:20	24	Self Heating during Stretch Blow Molding and Induced Properties <i>Yunmei Luo and Luc Chevalier</i>	Aula 8
17:20 - 17:40	267	On the factors affecting porosity dissolution in Selective Laser Sintering Process <i>Hai-Bang Ly, Eric Monteiro, Morgan Dal and Gilles Regnier</i>	Aula 8
17:40 - 18:00	307	Ultrasound-aided ejection in micro injection molding <i>Davide Masato, Marco Sorgato and Giovanni Lucchetta</i>	
18:00 - 18:20	176	The Effect of Internal Mould Water Spray Cooling on Rotationally Moulded Polyethylene Parts <i>Mark McCourt, Mark Kearns and Peter Martin</i>	
18:20 - 18:40	119	Correlation between Elastic and Plastic Deformations of Partially Cured Epoxy Networks <i>Michael Müller, Maik Gude, Hubert Jäger, Robert Böhm, Robert Kupfer and Sirko Geller</i>	

Wednesday, 25th April

Time	Sub. #	Presentation	Room
09:20 - 09:40	186	Measuring the significance of pearlescence in real-time bottle forming <i>James Nixon, Gary Menary and Shiyong Yan</i>	Aula 10
09:40 - 10:00	140	Characterization of PLA parts made with AM process <i>Roberto Spina, Bruno Cavalcante and Fulvio Lavecchia</i>	
10:00 - 10:20	172	Study of PMMA materials for a Digital Optical Module <i>Roberto Spina, Luigi Tricarico, Vincenzo Berardi, Gianfranca De Rosa, Piero Mastrorilli and Alan Ruggeri</i>	
10:20 - 10:40	232	Biaxial Deformation Behaviour of Poly-Ether-Ether-Ketone <i>Josh Turner and Gary Menary</i>	

ESAFORM 2018 - DETAILED PROGRAMME*(Building #19)***MS13 Semi-solid processes****Monday, 23th April**

Time	Sub. #	Presentation	Room
10:00 - 10:20	23	Semisolid forming of 44MnSiV6 microalloyed steel <i>Gorka Plata, Jokin Lozares, Inaki Hurtado, Zigor Azpilgain and Zuriñe Idoyaga</i>	Aula 9
10:20 - 10:40	49	Simulation of the infiltration process of a ceramic open-pore body with a metal alloy in semi-solid state to design the manufacturing of Interpenetrating Phase Composites <i>Laura Schomer, Mathias Liewald and Kim Riedmüller</i>	
10:40 - 11:00	83	Investigation on Hybrid Components with Intermetallic Phases produced by Thixojoining <i>Christoph Seyboldt and Mathias Liewald</i>	

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(Building #19)

MS14 Additive manufacturing

Tuesday, 24th April

Time	Sub. #	Presentation	Room
15:20 - 15:40	80	2D Modeling of Direct Laser Metal Deposition Process using a Finite Particle Method <i>Tahar Anedaf, Boussad Abbès, Fazilay Abbès and Yuming Li</i>	Aula 10
15:40 - 16:00	287	Influence of parameters controlling the extruder in Fused Filament Fabrication <i>Shahriar Bakrani Balani, France Chabert, Valerie Nassiet and Arthur Cantarel</i>	
16:00 - 16:20	245	Analysis of 3D printing parameters of gears for hybrid manufacturing <i>Grzegorz Budzik, Łukasz Przeszlowski, Michal Wieczorowski, Arkadiusz Rzucidlo, Bartosz Gapinski and Grzegorz Krolczyk</i>	
16:20 - 16:40	84	3D Printing For Health & Wealth: Fabrication Of Custom-Made Medical Devices Through Additive Manufacturing <i>Alessandro Colpani, Antonio Fiorentino and Elisabetta Ceretti</i>	
16:40 - 17:00	Coffee Break		
17:00 - 17:20	116	Impact of chemical polishing on surface roughness and dimensional quality of Electron Beam Melting process (EBM) parts <i>Adrien Dolimont, Edouard Rivère Lorphèvre, François Ducobu and Stéphane Backaert</i>	Aula 10
17:20 - 17:40	296	Epitaxial Growth in 316L Steel and NiCoCrFeMn High Entropy Alloy Made by Powder-bed Laser Fusion <i>Bogdan Dovggy and Minh-Son Pham</i>	
17:40 - 18:00	149	Thermal Analysis of Laser Additive Manufacturing of Aluminium Alloys: Experiment and Simulation <i>Frederic E. Bock, Martin Froend, Jan Herrnring, Josephin Enz, Nikolai Kashaev and Benjamin Klusemann</i>	
Wednesday, 25th April			
Time	Sub. #	Presentation	Room
09:20 - 09:40	183	The assessment of accuracy of inner shapes manufactured by FDM <i>Bartosz Gapinski, Michal Wieczorowski, Agata Bak, Alejandro Pereira DomÍnguez and Thomas Mathia</i>	Aula 9
09:40 - 10:00	202	Numerical Simulation of Metallic Wire Arc Additive Manufacturing (WAAM) <i>Marcel Graf, Keval Pradjadhiana, Andre Hälsig, Yupiter H. P. Manurung and Birgit Awiszus</i>	
10:00 - 10:20	143	Utilization of Curve Offsets in Additive Manufacturing <i>Vahid Haseltalab, Ulas Yaman and Melik Dolen</i>	
10:20 - 10:40	314	2D FE Simulations of High Speed Steel Laser Cladding Process <i>R.T. Jardin, H.S. Tran, N. Hashemi, J.T. Tchuindjang, R. Carrus, L. Duchêne, A. Mertens and A.M. Habraken</i>	
10:40 - 11:00	103	Stability of phase transformation models for Ti-6Al-4V under cyclic thermal loading imposed during laser metal deposition <i>Benjamin Klusemann and Markus Bambach</i>	
11:00 - 11:20	142	An Automated Design and Fabrication Pipeline for Improving the Strength of 3D Printed Artifacts Under Tensile Loading <i>Can Mert Al and Ulas Yaman</i>	
11:20 - 11:40	Coffee Break		
11:40 - 12:00	128	Numerical analysis of the heating phase and densification mechanism in polymers selective laser melting process <i>Aoulaiche Mokrane, M'Hamed Boutaous and Shihe Xin</i>	Aula 9
12:00 - 12:20	127	Rapid Production of Hollow SS316 Profiles by Extrusion based Additive Manufacturing <i>Kedarnath Rane, Salvatore Cataldo, Paolo Parenti, Luca Sbaglia, Valerio Mussi, Massimiliano Annoni, Hermes Giberti and Matteo Strano</i>	
12:20 - 12:40	349	A Novel Manufacturing Process For Heavy Forgings: Additive Forging <i>Mingyue Sun, Bin Xu, Bijun Xie and Jianyang Zhang</i>	
12:40 - 13:00	238	Electron Beam Additive Manufacturing with Wire - Analysis of the Process <i>Marek Węglowski, Sylwester Błacha, Jan Pilarczyk, Jan Dutkiewicz and Łukasz Rogal</i>	

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MS15 Formability of metallic materials

Monday, 23th April

Time	Sub. #	Presentation	Room
10:00 - 10:20	161	Numerical study of Multi-Point forming of thick sheet using remeshing procedure <i>Abel Cherouat, Xu Ma, Houman Borouchaki and Zhang Qi</i>	Aula 10
10:20 - 10:40	208	Investigation of the effects of process and geometrical parameters on formability in tube hydroforming using a modular hydroforming tool <i>Hamed Dardaei Joghian, Daniel Staupendahl, Hamad Ul Hassan, Andreas Henke, Thorsten Keesser, Francois Legat and A. Erman Tekkaya</i>	
10:40 - 11:00	248	Analysis of fracture in bending and roll forming <i>Aditya Deole, Matthew Barnett and Matthias Weiss</i>	
11:00 - 11:20	117	Investigation on bending failure to characterise crashworthiness of 6xxx-series aluminium sheet alloys with bending-tension test procedure <i>Philipp Henn</i>	
11:20 - 11:40	Coffee Break		
11:40 - 12:00	212	Experimental Formability Analysis of Bondal Sandwich Sheet <i>Abdolvahed Kami and Dorel Banabic</i>	Aula 10
12:00 - 12:20	145	New developments in tribomechanical modelling of automotive sheet steel forming <i>Tushar Khandeparkar, Toni Chezan and Jeroen van Beeck</i>	
12:20 - 12:40	121	Experimental and Numerical Investigations of Wire Bending by Linear Winding of Rectangular Tooth Coils <i>Anna Komodromos, Janna Hofmann, A. Erman Tekkaya and Jürgen Fleischer</i>	
12:40 - 13:00	288	Forming limit prediction by an evolving non-quadratic yield criterion considering the anisotropic hardening and r-value evolution <i>Junhe Lian, Fuhui Shen, Wenqi Liu and Sebastian Münstermann</i>	
13:00 - 13:20	264	Experimental analysis of the sheet metal forming behavior of newly developed press hardening steels <i>Enrique Meza-García, Verena Kräusel and Dirk Landgrebe</i>	
13:20 - 14:30	Lunch		

15:20 - 15:40	263	Measurement of Fracture Stress for 6000-Series Extruded Aluminum Alloy Tube Using Multiaxial Tube Expansion Testing Method <i>Keisuke Nagai, Toshihiko Kuwabara, Andrey Ilinich and George Luckey</i>	Aula 10
15:40 - 16:00	37	Development of a novel cold forging process to manufacture eccentric shafts <i>Lukas Pasler and Mathias Liewald</i>	Aula 10
16:00 - 16:20	321	Characterization Of The Austenitic Stability Of Metastable Austenitic Stainless Steel <i>Matthias Schneider and Mathias Liewald</i>	
16:20 - 16:40	338	A Comparative Study on the Forming Limit Diagram Prediction between Marciniak-Kuczynski Model and Modified Maximum Force Criterion by Using the Evolving Non-associated Hill48 Plasticity Model. <i>Fuhui Shen, Junhe Lian and Sebastian Münstermann</i>	
16:40 - 17:00	Coffee Break		
17:00 - 17:20	50	Influence Of Temperature And Friction On The 22MnB5 Formability Under Hot Stamping Conditions <i>Giulia Venturato, Andrea Ghiotti and Stefania Bruschi</i>	Aula 10
17:20 - 17:40	75	Characterization of Zinc Alloy by Sheet Bulging Test with Analytical Models and Digital Image Correlation <i>Ludovic Vitu, Nicolas Laforge, Pierrick Malécot, Nathalie Boudeau, Stephan Manov and Marc Milesi</i>	
17:40 - 18:00	318	Local laser-strengthening: Customizing the forming behavior of car body steel sheets <i>Markus Wagner, Axel Jahn, Beyer Eckard and Balzani Daniel</i>	
18:00 - 18:20	45	Forming Limit Curves of DP600 Determined in High-speed Nakajima Tests and Predicted by Two Different Strain-rate-sensitive Models <i>Nathalie Weiß-Borkowski, Junhe Lian, Alan Camberg, Thomas Tröster, Sebastian Münstermann, Bleck Wolfgang, Helmut Gese and Helmut Richter</i>	
18:20 - 18:40	8	Forming Limit Diagrams Based on Different Instability Criteria for Tubes with Initial Wall Thickness Differences <i>Qiwen Zhao, Lianfa Yang and Yulin He</i>	
18:40 - 19:00	328	Numerical investigation of tube hydroforming of TWT using Corner Fill Test <i>Temim Zribi and Ali Khalfallah</i>	

ESAFORM 2018 - DETAILED PROGRAMME
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MS16 Incremental and sheet metal forming

Monday, 23th April

Time	Sub. #	Presentation	Room
11:40 - 12:00	198	Dimensional Accuracy of Aluminium Extrusions in Mechanical Calibration <i>Christian Arne Raknes, Torgeir Welo and Frode Paulsen</i>	Aula 9
12:00 - 12:20	135	Prediction of stress- and strain-based forming limits of automotive thin sheets by numerical, theoretical and experimental methods <i>Gábor Béres, Zoltán Weltsch, Zsolt Lukács and Miklós Tisza</i>	
12:20 - 12:40	311	Experimental and Numerical Analysis of Interlocking Rib Formation at Sheet Metal Blanking <i>Spela Bolka, Vitoslav Bratus, Bojan Starman and Nikolaj Mole</i>	
12:40 - 13:00	284	Reducing workpieces to their base geometry for multi-step Incremental forming using manifold harmonics <i>Yannick Carette, Hans Vanhove and Joost Dufloy</i>	
13:00 - 13:20	46	On the Manufacturing of a Gas Turbine Engine Part through Metal Spinning Process <i>Andrea El Hassanin, Antonello Astarita, Fabio Scherillo, Antonino Squillace, Carla Velotti and Aurelio Liguori</i>	
13:20 - 14:30	Lunch		
15:20 - 15:40	104	Analytic Description of the Frictionally Engaged In-Plane Bending Process Incremental Swivel Bending (ISB) <i>Peter Frohn, Bernd Engel and Sebastian Groth</i>	Aula 9
15:40 - 16:00	111	Numerical analysis of tailored sheets to improve the quality of components made by SPIF <i>Francesco Gagliardi, Giuseppina Ambrogio, Anna Cozza, Diego Pulice and Luigino Filice</i>	
16:00 - 16:20	157	Influence of roll levelling on material properties and postforming springback <i>Lander Galdos, Joseba Mendiguren, Eneko Saenz de Argandoña and Elena Silvestre</i>	
16:20 - 16:40	272	Springback Effects during Single Point Incremental Forming: Optimization of the Tool Path <i>Laurence Giraud-Moreau, Jérémy Belchior, Pascal Lafon, Lionel Leotoing, Abel Cherouat, Eric Courteille, Dominique Guines and Patrick Maurine</i>	
16:40 - 17:00	Coffee Break		
17:00 - 17:20	35	Numerical Simulation of the Hole-Flanging Process for Steel-Polymer Sandwich Sheets <i>Dominic Griesel, Marco C. Keller and Peter Groche</i>	Aula 9
17:20 - 17:40	92	Dry Rotary Swaging with Structured and Coated Tools <i>Marius Herrmann, Christian Schenck and Bernd Kuhfuss</i>	
17:40 - 18:00	15	Identification Of A Process Window For Tailored Carburization Of Sheet Metals In Hot Stamping <i>Alexander Horn and Marion Merklein</i>	
18:00 - 18:20	67	Conditioning of Material Properties by Micro Rotary Swaging <i>Svetlana Ishkina, Christian Schenck and Bernd Kuhfuss</i>	
18:20 - 18:40	336	Study of the influence of selected anisotropic parameter in the Barlat's model on the drawpiece shape <i>Pawel Kaldunski, Leon Kukielka, Radoslaw Patyk, Agnieszka Kulakowska, Lukasz Bohdal, Jaroslaw Chodor and Krzysztof Kukielka</i>	

Tuesday, 24th April

Time	Sub. #	Presentation	Room
09:30 - 09:50	301	Testing of stiffening ribs formed by incremental forming in thin-walled aircraft structures made of aluminium alloy 2024-T3 ALCLAD <i>Andrzej Kubit, Dawid Wydrzynski, Magdalena Bucior and Bogdan Krasowski</i>	Aula 9
09:50 - 10:10	170	Radial-rotation profile forming: a new processing technology of incremental sheet metal forming. <i>Robert Laue, Sebastian Härtel and Birgit Awiszus</i>	
10:10 - 10:30	332	Analysis of Residual Stress State in Sheet Metal Parts Processed by Single Point Incremental Forming <i>Fabian Maaß, Soeren Gies, A. Erman Tekkaya, Dobecki Mateus, Katrin Brömmelhoff and Walter Reimers</i>	
10:30 - 10:50	250	Numerical Simulation on Chain-die Forming of an AHSS Top-hat Section <i>Raju Majji, Yang Xiang, Scott Ding and Chunhui Yang</i>	
10:50 - 11:10	109	Novel Process Chain for Hot Metal Gas Forming of Ferritic Stainless Steel 1.4509 <i>André Mosel, Jon Lambarri, Lars Degenkolb, Franz Reuther, José Luis Hinojo, Jörg Rößiger, Egbert Eurich, André Albert, Dirk Landgrebe and Holger Wenzel</i>	
11:10 - 11:30	Coffee Break		
11:30 - 11:50	333	Design of process parameters for the incremental tube forming (ITF) by FEM to control product properties <i>Esmaeil Nazari, Christian Löbbe, Stefan Gallus, S. Ahmad Izadyar and A. Erman Tekkaya</i>	Aula 9
11:50 - 12:10	138	Numerical-experimental Investigation Of Load Paths in DP800 Dual Phase Steel During Nakajima Test <i>Matthias Nick, Andreas Feuerhack, Daniel Trauth and Fritz Klocke</i>	Aula 9
12:10 - 12:30	32	Investigation of Fatigue Strength of Tool Steels in Sheet-Bulk Metal Forming <i>Florian Pilz, Daniel Gröbel and Marion Merklein</i>	
12:30 - 12:50	73	Optimisation of Tool Path for Improved Formability of Commercial Pure Aluminium Sheets during the Incremental Forming Process <i>Moyye Devi Prasad and Devarajan Nagarajan</i>	
12:50 - 13:10	40	Generation of Forming Limit Bands for Ultra-High-Strength Steels in Car Body Structures <i>Hamid Reza Bayat, Sayantan Sarkar, Francesco Italiano, Aleksandar Bach, Stephan Wulfinghoff and Stefanie Reese</i>	
13:10 - 13:30	64	Homogenisation of the Strain Distribution in Stretch Formed Parts to Improve Part Properties <i>Roman Schmitz, Mike Winkelmann, David Bailly and Gerhard Hirt</i>	
13:30 - 14:30	Lunch		
15:20 - 15:40	327	Assessment of the mechanical performance of Titanium cranial prostheses manufactured by Super Plastic Forming and Single Point Incremental Forming <i>Emanuele Sgambitterra, Antonio Piccininni, Pasquale Guglielmi, Giuseppina Ambrogio, Gionata Fragomeni, Tomaso Villa and Gianfranco Palumbo</i>	Aula 9
15:40 - 16:00	14	Model based Setup Assistant for Progressive Tools <i>Robert Springer, Manuel Gräler, Werner Homberg, Christian Henke and Ansgar Trächtler</i>	
16:00 - 16:20	101	Mechanical Properties of Sheet Metal Components with Local Reinforcement Produced by Additive Manufacturing <i>Ismail Ünsal, Alexander Sviridov, Markus Bambach, Rebar Hama-Saleh, Andreas Weisheit and Johannes Henrich Schleifenbaum</i>	
16:20 - 16:40	220	A study with ESI PAM-STAMP® on the influence of tool deformation on final part quality during a forming process <i>Mark Vrolijk, Takayuki Ogawa, David Lorenz, Arthur Camanho and Manfredi Biasutti</i>	
16:40 - 17:00	Coffee Break		
17:00 - 17:20	95	Anisotropy Influence on the Failure of Ti6Al4V Sheets Deformed at Room and Elevated Temperature <i>Qiaoling Wang, Andrea Ghiotti and Stefania Bruschi</i>	Aula 5
17:20 - 17:40	331	Effect of Multiple Forming Tools on Geometrical and Mechanical Properties in Incremental Sheet Forming <i>Sebastian Wernicke, Thai Dang, Soeren Gies and A. Erman Tekkaya</i>	

ESAFORM 2018 - DETAILED PROGRAMME

(Building #19)

MS17 Material behaviour modelling

Monday, 23th April

Time	Sub. #	Presentation	Room
15:20 - 15:40	89	Modeling the hot working behavior of laser melted material <i>Markus Bambach and Irina Sizova</i>	Aula 11
15:40 - 16:00	162	Modeling of Yield Surface Evolution in Uniaxial and Biaxial Loading Conditions using a Prestrained Large Scale Specimen <i>Frederic Barlat, Shakil Bin Zaman and Jin-Hwan Kim</i>	
16:00 - 16:20	25	New yield criteria for isotropic and textured metals <i>Oana Cazacu</i>	
16:20 - 16:40	325	Deformation behavior of a new Magnesium ternary alloy <i>Pasquale Guglielmi, Ali Arslan Kaya, Donato Sorgente and Gianfranco Palumbo</i>	
16:40 - 17:00	Coffee Break		
17:00 - 17:20	290	Grain-Scale Investigations of Deformation Heterogeneities in Aluminum Alloys <i>Baran Güler, Ülke Şimşek, Tuncay Yalçinkaya and Mert Efe</i>	Aula 11
17:20 - 17:40	241	Experimental Study and FEM Simulation of the Simple Shear Test of Cylindrical Rods <i>Pedro H. B. Wirti, André L. M. Costa, Wojciech Z. Misiolek and Henry S. Valberg</i>	
17:40 - 18:00	123	Towards the damage evaluation using Gurson-Tvergaard-Needleman (GTN) model for hot forming <i>Muhammad Imran and Markus Bambach</i>	
18:00 - 18:20	120	A Temperature Dependent Cyclic Plasticity Model for Hot Work Tool Steel Including Particle Coarsening <i>Andreas Jilg and Thomas Seifert</i>	
18:20 - 18:40	63	A New Tensile Impact Test For The Toughness Characterization Of Sheet Material <i>Markus Könemann, Victoria Brinnel, Sebastian Münstermann and David Lenz</i>	

Tuesday, 24th April

Time	Sub. #	Presentation	Room
09:30 - 09:50	300	Failure Prediction During Backward Flow Forming of Ti6Al4V Alloy <i>Abhishek Kumar Singh, Krishnaiyengar Narasimhan and Ramesh Singh</i>	Aula 10
09:50 - 10:10	90	Experimental Determination of Heat Transfer Coefficients in Roll Bite and Air Cooling for Computer Simulations of 1100 MPa Carbon Steel Rolling <i>Olli Leinonen, Joonas Ilmola, Oskari Seppälä, Aarne Pohjonen, Jussi Paavola, Sami Koskenniska and Jari Larkiola</i>	
10:10 - 10:30	133	Comparison of two methods for detection of strain localization in sheet forming <i>Dmytro Lumelskyj, Lucian Lazarescu, Dorel Banabic and Jerzy Rojek</i>	
10:30 - 10:50	38	Application of the in-situ tensile test for identification of the random cellular automata finite element fracture model parameters <i>Lukasz Madej, Konrad Perzynski, Jinagting Wang, Krzysztof Radwański and Krzysztof Muszka</i>	
10:50 - 11:10	77	Sheet metals characterisation using the Virtual Fields Method <i>Aleksander Marek, Frances Davis and Fabrice Pierron</i>	
11:10 - 11:30	Coffee Break		
11:30 - 11:50	252	A Theoretical Study on Pure Bending of Hexagonal Close-Packed Metal Sheet <i>Hamed Mehrabi and Chunhui Yang</i>	Aula 10
11:50 - 12:10	244	Hot deformation behaviors of AA5383 alloy <i>Du Rou, Eliane Giraud, Charles Mareau, Yessine Ayed and Philippe Dal Santo</i>	
12:10 - 12:30	68	Improving the prediction of the final part geometry in high strength steels U drawing by means of advanced material and friction models <i>Eneko Saenz de Argandoña, Lander Galdos, Joseba Mendiguren, Nagore Otegi, Endika Mugarra and Irune Otero</i>	
12:30 - 12:50	99	Experimental characterization and microstructure linked modeling of mechanical behavior of ultra-thin aluminum foils used in packaging <i>Laurent Tabourot, Ludovic Charleux, Pascale Balland, Ndeye Awa Sene and Andreasson Eskill</i>	
12:50 - 13:10	131	Numerical Study of Slip System Activity and Crystal Lattice Rotation under Wedge Nanoindents in Tungsten Single Crystals <i>Tillmann Volz, Jin Wang, Ruth Schwaiger and Sabine Weygand</i>	
13:10 - 13:30	306	Three Dimensional Grain Boundary Modeling in Polycrystalline Plasticity <i>Tuncay Yalcinkaya, Izzet Ozdemir and Ali Osman Firat</i>	

NOTES