

Time	<b>Wednesday 27th April (morning)</b>				
08:00	<b>Registration (Queen's Welcome Centre)</b>				
09:00	<b>Opening ceremony, Peter Froggatt Centre, Room, 0G/007</b>				
09:30 - 10:10	Plenary keynote (Room OG/007) <b>Re-inventing Rotomoulding</b> Prof. R. Crawford				
10:10	<b>Coffee break (Sir William Whitla Hall)</b>				
Room	<b>02/018</b>	<b>02/026</b>	<b>02/017</b>	<b>02/025</b>	<b>02/011</b>
MS	<b>Structures, Properties and Processing of Polymers</b>	<b>Composites Forming Processes</b>	<b>Materials Behaviour and Formability</b>	<b>Incremental &amp; Sheet Metal Forming</b>	<b>Machining and Cutting</b>
Chair	F. Schmidt	R. Akkerman	T. Kuwabara	C. Giardini	T. Matsumura
10:40 - 11:00	<b>Block Copolymer Modified Epoxy Amine System for Reactive Rotational Molding: Structures, Properties and Processability</b> Eva Lecocq, Fabien Nony and Jean-François Gerard.	<b>Measuring the Shear-Tension Coupling of Engineering Fabrics</b> Faraq Abdiwi, Dr Philip Harrison and Dr Zaoyang Guo.	<b>New distortional hardening model capable of predicting eight ears for textured aluminum sheet</b>  Mini Symposium Keynote	<b>Sheet Bending using Soft Tools</b> Jos Sinke.	<b>Research about Elastic Mechanism of Error Generation in Ball End Milling based in Geometric Analysis</b> Hisanobu Terai, Teruyuki Asao, Koichi Kikkawa and Yoshio Mizugaki.
11:00 - 11:20	<b>Multilayered Glass Fibre-reinforced Composites In Rotational Moulding</b> Wai Chow Chang, Eileen Harkin-Jones, Mark Kearns and Mark Mccourt.	<b>Digital Method of Analyzing the Bending Stiffness of Non-Crimp Fabrics</b> Dimitri Soteropoulos, Konstantine Fetfatsidis, James Sherwood and Joanna Langworthy.	JH Yoon, Oana Cazacu and J W Yoon.	<b>Integrated piezoelectric actuators in deep drawing tools to reduce the try-out</b> Patrick Maima, Reimund Neugebauer, Matthias Kerschner, Welf-Guntram Drossel and Hans-Jürgen Roscher.	<b>Experimental investigation of parameter-dependent analytical cutting force models for the simulation of the milling process</b> Edouard Rivière-Lorphèvre, Enrico Filippi and Pierre Dehombreux.
11:20 - 11:40	<b>Modelling of Coalescence of PMMA Particles / Farz</b> Sedigheh Farzaneh and Abbas Tcharkhtchi.	<b>Biaxial extension of knitted steel fibre fabrics</b> Kristof Vancooster, Ahmad Eshghyar and Stepan V. Lomov.	<b>Constitutive modelling of evolving flow anisotropy including distortional hardening</b> Michael Pietryga, Ivaylo Vladimirov and Stefanie Reese.	<b>Development and Investigation of a Modular Tool Concept Based on Polymer Elements</b> Roland Süß, Ralf Kolleck and Christian Koroschetz.	<b>Modelling and Development of a High Performance Milling Process with Monolithic Cutting Tools</b> Erdem Ozturk, Chris M. Taylor, Sam Turner and Mike Devey
11:40 - 12:00	<b>Influence Of The Microinjection Moulding Process On The Crystalline Orientation And Morphology Of Semicrystalline Polymers</b> Nada Bou Malhab and Gilles Regnier.	<b>Nonlinear Deformation Behavior of New Braided Composites with Six-axis Yarn Orientations</b> Hyun-Chul Ahn, Woong-Ryeol Yu and Zaoyang Guo.	<b>On the material modelling of anisotropy, hardening and failure of sheet metals in the finite strain regime</b> Ivaylo Vladimirov, Vivian Tini, Yalin Kiliclar and Stefanie Reese.	<b>Micro-Drawing of Circular Cups with Thin Stainless Steel Sheets</b> Hong-Syuan Su, Fuh-Kuo Chen and Kuo-Yin Tu.	<b>Strain Gradient plasticity theory applied to machining</b> Raphaël Royer, Raynald Laheurte, Philippe Darnis, Alain Gérard and Olivier Cahuc.
12:00 - 12:20	<b>Morphology and properties of recycled polypropylene/bamboo fibers composites</b> Nguyen Tri Phuong, Bui Chuong, Alain Guinault and Cyrille Sollogoub.	<b>Numerical Simulation of Textile Composite Stamping On Double Dome</b> Xiongqi Peng and Zia Ur Rehman.	<b>Characterization of Mechanical Behaviour of Sheet Metal: Hardening at Large Strains and Anisotropy Identification</b> Marko Vrh, Miroslav Halilovic and Boris Stok.	<b>Low Temperature Sheet Forming</b> Kathrin Voges-Schwieger, Dr. Sven Hübner and Prof. Dr.-Ing. Bernd-Arno Behrens.	<b>Prediction of Cutting Forces using ANNs approach in hard turning of AISI 52100 steel</b> Souad Makhfi, Malek Habak, Raphaël Velasco, Kamel Haddouche and Pascal Vantomme.
12:20 - 12:40	<b>PHEA-PLLA: A New Polymer Blend For Tissue Engineering Applications</b> Francesco Carfi Pavia, Vincenzo La Carrubba, Fabio Palumbo, Gaetano Giammona and Valerio Brucato.	<b>Use of a hyperelastic constitutive law for dry woven forming simulations</b> Emmanuelle Vidal-Salle, Yamina Aimene and Philippe Boisse.	<b>A model for TRIP steel constitutive behavior</b> E. Semih Perdahcioglu and Hubert J. M. Geijselaers.	<b>Experimental and Numerical Studies on the Formability of Materials in Hot Stamping and Cold Die Quenching Processes</b> Nan Li, Mohamed Mohamed, Jingqi Cai, Jianguo Lin, Daniel Balint and Trevor Dean.	<b>Constraint optimization problem for the cutting of a Cobalt Chrome refractory material</b> Nadhir Lebaal, Daniel Schlegel and Milena Folea.
12:40 - 14:00	<b>Lunch (Sir William Whitla Hall)</b>				

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09:00	<b>Opening ceremony, Peter Froggatt Centre, Room, 0G/007</b>				
09:30 - 10:10	Plenary keynote (Room OG/007) <b>Re-inventing Rotomoulding</b> Prof. R. Crawford				
10:10	<b>Coffee break (Sir William Whitla Hall)</b>				
Room	<b>03/006A</b>	<b>03/006B</b>	<b>03/005</b>	<b>03/011</b>	<b>02/013</b>
MS	<b>Inverse Analysis, Optimization and Stochastic Approaches</b>	<b>Scale Transition in Metals: From Microstructure to Macro-scale Properties</b>	<b>Hydroforming and Superplastic Forming</b>	<b>Innovative Joining by Forming Technologies</b>	<b>Non Conventional Processes</b>
Chair	M. Strano	AM. Habraken	E. Massoni	L. Fratini	L. Santo
10:40 - 11:00	<b>A novel criterion for determination of material model parameters</b> António Andrade-Campos, Raquel de Carvalho and Robertt Valente.	<b>Modeling of anisotropy induced by evolution of dislocation microstructures on different scales</b> Till Clausmeyer, Swantje Bargmann and Bob Svendsen.	<b>Failure prediction method for hydro forming simulation of thick walled tubes</b> Ralf Kolleck, Peter Auer and Gerfried Auer.	<b>Finite Element Modeling and Optimization of Mechanical Joining Technology</b>  Mini Symposium Keynote	<b>Micro Electro Discharge Machining of Electrically Nonconductive Ceramics</b>  Mini Symposium Keynote
11:00 - 11:20	<b>How To Identify Johnson-Cook Parameters From Machining Simulations</b> Aviral Shrot and Martin Bäker.	<b>Influence of Texture and Grain Shape on the Yield Surface in Aluminium Sheet Material Subjected to Large Deformations</b> Afaf Saai, Stephane Dumoulin and Odd Sture Hopperstad.	<b>Prediction of Burst Pressure Using Decoupled Ductile Fracture Criteria for Tube Hydroforming of Aerospace Alloys</b> Mehdi Saboori, J. Gholipour, H. Champliaud, A. Gakwaya, J. Savoie and P. Wanjara	<b>Joining of Aluminium Alloy Sheets by Rectangular Mechanical Clinching</b> Jean-Loup Chenot, Pierre-Olivier Bouchard, Elisabeth Massoni, Katia Mocellin and Patrice Lasne.	<b>Influence of additional needle pulses using Electrical Discharge Machining</b> Andreas Schubert, Henning Zeidler, Nicolas Wolf and Matthias Hackert.
11:20 - 11:40	<b>Ductile damage parameters identification for cold metal forming applications</b> Pierre-Olivier Bouchard, Jean-Marie Gachet and Emile Roux.	<b>Physically Based Kinematic Hardening Modelling of Single Crystal</b> Pascale Balland, Christophe Déprés, Rémi Billard and Laurent Tabourot.	<b>Challenging In-Situ Strain Measurement In Pneumatic Bulging Of AA5083</b> Mathias Liewald and Jens Kappes.	<b>Joining of Aluminium Alloy Sheets by Rectangular Mechanical Clinching</b> Yohei Abe, Toru Kato and Ken-ichiro Mori.	<b>Influence of additional needle pulses using Electrical Discharge Machining</b> Hans-Peter Schulze, Henrik Juhr and Haas Rüdiger.
11:40 - 12:00	<b>A statistically based methodology in the identification of friction welding parameters</b> Carlo Bruni, Archimede Forcellese, Filippo Gabrielli and Michela Simoncini.	<b>Simulation of Recrystallisation and Grain Size Evolution in Hot Metal Forming</b> Nikolay Biba, Alexander Borowikow and Doris Wehage.	<b>Finite Element Simulations for Sheet Warm Hydroforming</b> Antonio Del Prete, Gabriele Papadia, Antonio Alberto De Vitis and Teresa Primo.	<b>Mechanical joining with self piercing solid-rivets at elevated tool velocities</b> Reimund Neugebauer, Fred Jesche, Christian Kraus and Sebastian Hensel.	<b>Prediction of Thermal Residual Stresses with a Thermo-physical Model of Electrical Discharge Machining Process</b> Dr. Shrikrishna N. Joshi and Swapnil D. Pande.
12:00 - 12:20	<b>The Geometry Definition Influence in Inverse Analysis - Application to Carter Forming Process</b> Raquel De-Carvalho, Sérgio Silva, Robertt Valente and António Andrade-Campos.	<b>Fundamental Study on Microstructure Control by Combination of Nano Plastic Forming and Annealing</b> Masahiko Yoshino.	<b>Pressure Influence on the Final Thickness at the Dome Apex in Superplastic Bulging Tests for Magnesium-Based AZ31 Alloy</b> Gillo Giuliano and Gaspare Giovinco.	<b>Self-Pierce Riveting Through 3 Sheet Metal Combinations</b> Roger Andersson, Paul Jonason and Tommy Pettersson.	<b>Factoring Acting on the Tool Wear at Various Dimensional Structures during the Electro-Discharge Machining</b> Hans-Peter Schulze, Laurentiu Slatineanu and Margareta Coteata.
12:20 - 12:40		<b>Strain heterogeneity and local anisotropy in TWIP steels</b>  Sylvain Dancette, Maxime Melchior, Laurent Delannay, Krystel Renard and Pascal Jacques.		<b>Fatigue strength of a single lap joint SPR-bonded</b>  Giuseppe Di Franco, Livan Fratini and Antonino Pasta.	<b>Roll casting of Al-25%Si</b>  Toshio Haga.
12:40 - 14:00	<b>Lunch (Sir William Whitla Hall)</b>				

Time	Wednesday 27th April (afternoon)				
14:00 - 14:40	<p style="text-align: center;">Plenary keynote (Room OG/007)</p> <p style="text-align: center;"><b>Modeling &amp; Simulation of food plastic packaging: overview, challenges and perspectives</b></p> <p style="text-align: center;">Dr. S. Batkam</p>				
Room	02/018	02/026	02/017	02/025	02/011
MS	Structures, Properties and Processing of Polymers	Composites Forming Processes	Materials Behaviour and Formability	Incremental & Sheet Metal Forming	Machining and Cutting
Chair	G. Regnier	S. Lomov	Myoung-Gyu Lee	T. Meinders	D. Umbrello
14:40 - 15:00	<p><b>Optical measurement and modelling of parison sag and swell in blow moulding</b></p> <p>Yves Breaux, Jean-yves Charmeau and Jean Balcaen.</p>	<p><b>Mechanical Properties and Deformability During the Preforming of a Flax Reinforcement</b></p> <p>Pierre Ouagne and Damien Soulat.</p>	<p><b>Measurement of Work Hardening Behavior of Pure Titanium Sheet Using A Servo-Controlled Tube Bulge Testing Apparatus</b></p> <p>Mini Symposium Keynote</p>	<p><b>Formability Limits of a SPIFed Stainless Steel</b></p> <p>Crina Radu and Sebastien Thibaud.</p>	<p><b>Determination of Specific Forces and Tool Deflections in Micro-milling of Ti-6Al-4V alloy using Finite Element Simulations and Analysis</b></p> <p>Elisabetta Ceretti, Simone Farina, Tugrul ozel and Thepsonthi Thanongsak.</p>
15:00 - 15:20	<p><b>Modeling the Constitutive Behaviour of PET for Stretch Blow Moulding</b></p> <p>Shiyong Yan and Gary Menary.</p>	<p><b>Numerical simulation of multi-layered textile composite reinforcement forming</b></p> <p>Peng Wang, Nahiène Hamila and Philippe Boisse.</p>	<p>Takeshi Sumita, Toshihiko Kuwabara and Yasuhiro Hayashid.</p>	<p><b>Advances in Simulation of Two Point Incremental Forming</b></p> <p>Rogelio Perez-Santiago, Antonio Fiorentino, Roberto Marzi and Ciro Angel Rodriguez.</p>	<p><b>Modelling Of Residual Stresses Induced By High Speed Milling Process</b></p> <p>Olivier Desmason, Katia Mocellin and Nicolas Jardin.</p>
15:20 - 15:40	<p><b>Analysis of Stretch-Blow Moulded Bottles Using an Integrative Process Simulation</b></p> <p>Christian Hopmann, Walter Michaeli and Sebastian Rasche.</p>	<p><b>Simulation of the Manufacturing of Non-Crimp Fabric Reinforced Composite Wind Turbine Blades to Predict the Formation of Wave Defects</b></p> <p>Konstantine Fetfatsidis and James Sherwood.</p>	<p><b>Determination of stress-strain curves of sheet metals by hydraulic bulge test</b></p> <p>Lucian Lazarescu, Dan Sorin Comsa and Dorel Banabic.</p>	<p><b>Investigation of Forming Strategies to Set up Mechanical Properties of Parts Made by Incremental Sheet Bulk Rolling</b></p> <p>Bjoern Plugge, Sebastian Schunck, Lukas Kwiatkowski, Alexander Brosius and A. Erman Tekkaya.</p>	<p><b>A New Vuinter Subroutine For ABAQUS/EXPLICIT TM to Model Rate Dependent Surface Interaction Laws in Machining</b></p> <p>A. Kortabarria, J. Rech, E. Ruiz De Eguilaza and Pedro-José Arrazola.</p>
15:40	Coffee break (Sir William Whitla Hall)				
Chair	G. Regnier	F. Chinesta	O. Cazacu	C. Giardini	L. Filice
16:10 - 16:30	<p><b>Multiscale Modeling of the Orthotropic Behaviour of PA6-6 overmoulded Composites using MMI™ Approach</b></p> <p>Jerome Bikard, Gilles Robert and Olivier Moulinjeune.</p>	<p><b>Simulation of Forming and Wrinkling of Textile Composite Reinforcements</b></p> <p>N. Hamila, P. Wang, E. Vidal-Sallé and P. Boisse.</p>	<p><b>Flow Curve Determination at Large Plastic Strain Levels: Limitations of the Membrane Theory in the Analysis of the Hydraulic Bulge Test</b></p> <p>Xavier LEMOINE, Adrian Iancu and Gérard Ferron.</p>	<p><b>Friction Spinning – New Innovative Tool Systems For The Production of Complex Functionally Graded Workpieces</b></p> <p>Werner Homberg and Daniel Hornjak.</p>	<p><b>Modelling Sawing of Metal Tubes Through FEM Simulation</b></p> <p>Carlos Maximiliano Giorgio Bort, Paolo Bosetti and Stefania Bruschi.</p>
16:30 - 16:50	<p><b>Effect of Clay Amounts on Morphology and Mechanical Performances in Multiscale PET composites</b></p> <p>Carlos Nuno Veiga Barbosa, France Chabert, Valerie Nassiet, Julio Viana</p>	<p><b>In situ consolidation for thermoplastic tape placement process is not obvious.</b></p> <p>Anais Barasinski, Adrien Leygue, Eric Soccarrad and Arnaud Poitou.</p>	<p><b>Flow Curve Determination at Large Plastic Strain Levels to Accurately Constitutive Equations of AHSS in Forming Simulation</b></p> <p>Xavier Lemoine, Sadagopan Sriram and Richard Kergen.</p>	<p><b>FE simulation of a steel thin-wall short-tube forming process</b></p> <p>Jonathan Raujol-Veillé, Franck Toussaint, Laurent Tabourot, Mathieu Vautrot and Pascale Balland.</p>	<p><b>3D FEM Simulation of Flank Wear in Turning</b></p> <p>Aldo Attanasio, Elisabetta Ceretti and Claudio Giardini.</p>
16:50 - 17:10	<p><b>Crystallization and Melting Properties of Polypropylenes Containing Multiwall Carbon Nanotube</b></p> <p>Andrea Adamne Major and Karoly Belina.</p>	<p><b>Friction in Forming of UD Composites</b></p> <p>Ulrich Sachs, Sebastiaan Haanappel, Matthijn De Rooij, Remko Akkerman and René Ten Thije.</p>	<p><b>Evaluation of Anisotropic Yield Functions Characterized by Uni-axial and Biaxial Experiments for Formability of DP590 Sheet Steel</b></p> <p>Jin-Woo Lee, Seok Nyeon Kim, Myoung-Gyu Lee and Frédéric Barlat.</p>	<p><b>Comparing the weld zone representation methods during the formability prediction of friction stir welded blanks</b></p> <p>Perumalla Janaki Ramulu and R Ganesh Narayanan.</p>	<p><b>On The Deformation Mechanism In Shearing With Concurrent Crack Growth Over The Cut Section</b></p> <p>Janis Kandis, Henry Valberg and Wu Wenbin.</p>
17:10 - 17:30	<p><b>Non-isothermal Crystallization Behaviors of HDPE/MWCNT Nanocomposites</b></p> <p>Yongsok Seo, Jihun Kim, Youngwook P. Seo and Soon Man Hong.</p>	<p><b>Thermoforming of Continuous Fibre Reinforced Thermoplastic Composites</b></p> <p>Rauri McCool, Adrian Murphy, Ryan Wilson, Zhenyu Jiang and Mark Price.</p>	<p><b>Towards Industrial Application of Damage Models for Sheet Metal Forming</b></p> <p>M. Doig and K. Roll</p>	<p><b>Predicting the forming limit of friction stir welded blanks</b></p> <p>Perumalla Janaki Ramulu and R Ganesh Narayanan.</p>	<p><b>On The Mechanics Of The Shearing Process in Bar Shearing</b></p> <p>Janis Kandis, Henry Valberg and Wu Wenbin.</p>
17:30 - 17:50	<p><b>Microlayer coextrusion process as a way to improve thermomechanical properties of ABS/PC blends</b></p> <p>Cyrille Sollogoub, Anne Grandmontagne and Alain Guinault.</p>	<p><b>In-plane shear characterisation of uni-directionally reinforced thermoplastic melts</b></p> <p>Sebastiaan Haanappel, Rene Ten Thije, Ulrich Sachs, Bert Rietman and Remko Akkerman.</p>	<p><b>Investigation of the Workability and Response of Ti-6Al-4V Titanium alloys at Lower Elevated Temperature and Higher Strain Rate</b></p> <p>Cindy Xiaohui Huang, Chao Voon Lim and Sylvie Castagne.</p>		<p><b>Finite Element Simulation of Machining of Ti6Al4V Alloy</b></p> <p>Stefania Rizzuti and Domenico Umbrello.</p>
19:30	Welcome Reception. The Great Hall, Queen's University of Belfast				

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14:00 - 14:40	<p style="text-align: center;">Plenary keynote (Room OG/007)</p> <p style="text-align: center;"><b>Modeling &amp; Simulation of food plastic packaging: overview, challenges and perspectives</b></p> <p style="text-align: center;">Dr. S. Batkam</p>				
Room	03/006A	03/006B	03/005	03/011	02/013
MS	Inverse Analysis, Optimization and Stochastic Approaches	Scale Transition in Metals: From Microstructure to Macro-scale Properties	New and Advanced Numerical Strategies for Material Forming	Innovative Joining by Forming Technologies	Non Conventional Processes
Chair	Ton van den Boogaard	L. Tabourot	R. Natal		L. Slătineanu
14:40 - 15:00	<p><b>Robust optimization of metal forming processes using a metamodel-based strategy</b></p> <p>J.H. Wiebenga, G. Klaseboer and A.H. van den Boogaard.</p>	<p><b>Roller Pressure Quench Process of Steel Plate Modelling</b></p> <p>Cédric Lequesne, Olivier Pensis, Michel Renard, Serge Vanderheyden and Anne Marie Habraken.</p>	<p><b>On Inverse Form Finding for Anisotropic Elastoplastic Materials</b></p>		<p><b>Undercuts by Laser Shock Forming</b></p>
15:00 - 15:20	<p><b>A Comparative Analysis of Different Robust Design Approaches in Sheet Stamping Operations</b></p> <p>Laura Marretta and Rosa Di Lorenzo.</p>	<p><b>A space-time concept for martensitic phase transformation</b></p> <p>Eduard Oberaigner, Michael Fischschweiger and Thomas Antretter.</p>	<p>Mini Symposium Keynote</p> <p>Sandrine Germain and Paul Steinmann.</p>		<p>Mini Symposium Keynote</p> <p>Hanna Wielage and Frank Vollertsen.</p>
15:20 - 15:40	<p><b>Improved design of a three roll tube bending process under geometrical uncertainties</b></p> <p>Matteo Strano, Bianca Maria Colosimo and Enrique Del Castillo.</p>	<p><b>A novel method of multi-scale simulation of macro-scale deformation and microstructure evolution on metal forming</b></p> <p>Huang Shiquan, Yi Youping and Li Pengchuan.</p>	<p><b>Proper Generalized Decomposition Based Dynamic Data-Driven Control of Material Forming Processes</b></p> <p>Chady Ghnatios, Françoise Masson, Adrien Leygue, Elias Cueto and Francisco Chinesta.</p>		<p><b>Mechanical Properties of Laser Heat Treated 6 mm Thick UHSS-Steel</b></p> <p>Antti Järvenpää, Kari Mäntyjärvi, Marion Merklein, Antti Määttä, Mikko Hietala and Jussi Karjalainen.</p>
15:40	<b>Coffee break (Sir William Whitla Hall)</b>				
Chair	R. Valente	L. Tabourot	E. Cueto	M. Merklein	L. Slătineanu
16:10 - 16:30	<p><b>Experimental Uncertainties affecting the Accuracy of Stress-Strain Equations by the Example of a Hensel-Spittel Approach</b></p> <p>Thomas Henke, Markus Bambach and Gerhard Hirt.</p>	<p><b>Towards the Prediction of Damage Of Peritectic Steels During Continuous Casting Process</b></p> <p>Clement Keller, R. Schwartz, M. Bobadilla, J. Tchoufang Tchoundjang, J. Lecomte-Beckers and A.M. Habraken</p>	<p><b>Towards the effective behaviour of polycrystalline materials for sheet bulk metal forming processes</b></p> <p>Eva Lehmann, Stefan Loehnert and Peter Wriggers.</p>	<p><b>Characterization of Friction Stir Welded Tubes by Means of Bulge Test</b></p> <p>Gianluca D'Urso, Michela Longo and Claudio Giardini.</p>	<p><b>Diode laser welding of aluminum to steel</b></p> <p>Loredana Santo, Fabrizio Quadri and Federica Trovalusci.</p>
16:30 - 16:50	<p><b>A Simulation Based Metaheuristic Optimization of the Thermal Cure Cycle of Carbon-Epoxy Composite Laminates</b></p> <p>Pierpaolo Carlone and Gaetano S. Palazzo.</p>	<p><b>Particle-polymer Interactions Analysis For Metal Powder Injection Molding Feedstock: A Molecular-dynamics Simulation With Dissipative Particle Dynamics Using ESPReso</b></p> <p>Guillaume Larsen, Zhiqiang Cheng, Thierry Barriere, Baosheng Liu and Jean-Claude Gelin.</p>	<p><b>New Approaches on Automated Wrinkle Detection in Sheet Metal Components by Forming Simulation</b></p> <p>Mathias Liewald, Klaus Wurster and Christian Blaich.</p>	<p><b>Comparison of ALE finite element method and adaptive smoothed finite element method for the numerical simulation of friction stir welding</b></p> <p>Arnoud Van Der Stelt, Ton Bor, Bert Geijselaers, Wouter Quak, Remko Akkerman and Han Huetink.</p>	<p><b>Research on how to improve the accuracy of the SLM metallic parts</b></p> <p>Pacurar Razvan, Balc Nicolae and Prem Florica.</p>
16:50 - 17:10	<p><b>Design of inductors in electromagnetic casting using topological derivatives</b></p> <p>Alfredo Canelas, Antonio Andre Novotny and Jean Rodolphe Roche.</p>	<p><b>Qualitative study on texture evolution in rolled sheet metals</b></p> <p>Katja Jöchen and Thomas Böhlke.</p>	<p><b>Micromechanical Modeling of Metal Forming Operations</b></p> <p>Tung Phan Van, Katja Jöchen and Thomas Böhlke.</p>	<p><b>Metallurgical And Mechanical Analyses Of Dissimilar Friction Weldments Of Ferrous And Non-Ferrous Metals For Lightweight Components</b></p> <p>Gerald Figala, Michael Taschauer, Stefan Wallner and Bruno Buchmayr.</p>	<p><b>A Comparison Between Mechanical And Electrochemical Tests on Ti6Al4V Welded By LBW.</b></p> <p>Gaspere Serroni, Antonino Squillace, Antonello Astarita, Attilio Scala, Umberto Prisco, Antonio Gloria and Francesco Bellucci.</p>
17:10 - 17:30	<p><b>Moving Least Squares Innovative Strategies For Sheet Forming Design</b></p> <p>Giuseppe Ingarao, Rosa Di Lorenzo and Fabrizio Micari.</p>		<p><b>Analysis of Sandwich Shells with Metallic Foam Cores based on the Uniaxial Tensile Test</b></p> <p>Helder Mata, Abel Santos, António Fernandes, Robertt Valente, Marco Parente and Renato Jorge.</p>	<p><b>Numerical simulation of linear friction welding (LFW) processes</b></p> <p>Livan Fratini and Dario La Spisa.</p>	
17:30 - 17:50	<p><b>Initial billet and forging dies shape optimization: Application on an axisymmetrical forging with a hammer</b></p> <p>Fanjuan Meng, Carl Labergere and Pascal Lafon.</p>		<p><b>Numerical Analysis of Air Pressure Effects on the Flow Pattern during the Filling of a Vertical Die Cavity</b></p> <p>Juan Hernández-Ortega, R. Zamora, J. López and F. Faura</p>		
19:30	<b>Welcome Reception. The Great Hall, Queen's University of Belfast</b>				

Time	Thursday 28th April (morning)				
08:30 - 09:10	Plenary keynote (Room OG/007) <b>Coupling Crystal-Scale Behaviors with Metal Forming Simulations</b> Prof. P. Dawson				
Room	02/018	02/026	02/017	02/025	02/011
MS	Structures, Properties and Processing of Polymers	Composites Forming Processes	Materials Behaviour and Formability	Incremental & Sheet Metal Forming	Machining and Cutting
Chair	L. Silva	P. Boisse	L. Delannay	T. Welo	
09:10-09:30	<b>Stretch Blow moulding of PET; Structure development and constitutive model</b>  Noelle Billon, Martin Picard and Eric Gorlier	<b>Micromechanical modeling of short glass-fiber reinforced thermoplastics - Isotropic damage of pseudograins</b>  Slim Kammoun, Laurence Brassart, Issam Doghri and Laurent Delannay.	<b>Investigation of Ductile Damage in DP980 Steel Sheets Using Mechanical Tests and X-ray Micro-Tomography</b>  Abhishek Mishra, Claire Leguen, Sandrine Thuillier and Eric Maire.	<b>A Consistent Constitutive Model for Nonlinear Unloading Behavior</b>  Li Sun and Robert Wagoner.	
09:30-09:50	Mini Symposium Keynote  Noelle Billon, Martin Picard and Eric Gorlier	<b>Forming Simulation as one Step in the Process Chain of Composite Manufacturing</b>  J. Schumacher and G. Ziegmann	<b>Elasto-plastic model with second order defect density tensor</b>  Sanda Cleja-Tigoiu.	<b>Experimental Evaluation of Springback in Aluminium Alloys Using Optical Measurement and Numerical Analysis</b>  Rahul Bhattacharya, Matthew Stanton, Ian Dargue, Richard Aylmore and Geraint Williams.	
09:50-10:10	<b>Identification of a Visco-Elastic Model for PET Near Tg Based on Uni and Biaxial Results</b>  Yun Mei Luo, Luc Chevalier and Eric Monteiro.	<b>In-Situ Measurements of Fabric Thickness Evolution During Draping</b>  Dmitry Ivanov, Christoph van Gestel, Stepan Lomov and Ignaas Verpoest.	<b>Development and setting of a new system for advanced rheocast components</b>  Mario Rosso, Ildiko Peter and Francesco Calosso.	<b>Constitutive Modelling and Springback Prediction in Creep Age Forming of AA7055 Doubly Curved Panels</b>  Lihua Zhan, Jianguo Lin and Minghui Huang.	
10:10	Coffee break (Sir William Whitla Hall)				
Chair	L. Silva	J. Sherwood	L. Delannay	T. Meinders	D. Umbrello
10:40 - 11:00	<b>Simulation of Polymer Forming Processes - Addressing Industrial Needs</b>  Francis Thibault and Robert DiRaddo.	<b>Build Validation Methods for Composite Assemblies Using Simulated Part Form Prediction</b>  Peidong Han, Joe Butterfield, Mark Price and Adrian Murphy.	<b>Variability Analysis of the Mechanical Parameters in order to Determine the Forming Limit Band</b>  Mini Symposium Keynote  Liana Paraianu, Ioana Bichis and Dorel Banabic.	<b>Springback Control in Industrial Bending Operations: Assessing the Accuracy of Three Commercial FEA Codes</b>  Torgeir Welo , Bjorg M. Granly , Christer Elverum , Odd P. Sovik and Steinar Sorbo	<b>Experimental Investigation of White Layer formation in Hard Turning</b>  Domenico Umbrello, Giovanna Rotella and Fortunato Crea.
11:00 - 11:20	<b>New progress in the modelling of stretching flows in a stress-crystallising polymer</b>  C.P. Buckley and A. Lew.	<b>An Experimental Study of the Routing of an Unidirectional Carbon/Epoxy Composite</b>  Yosra Turki, Malek Habak, Raphaël Velasco and Pascal Vantomme	Mini Symposium Keynote  Liana Paraianu, Ioana Bichis and Dorel Banabic.	<b>Experimental Investigation of Damage and Fracture Mechanisms Controlling the Performance of Full Aperture Easy Open Ends for Food Containers</b>  Daryn Taylor, Géza Nagy and Roger Owen.	<b>Dry vs. Cryogenic Orthogonal Hard Machining: an Experimental Investigation</b>  Domenico Umbrello, Serafino Caruso, Serena Di Renzo, Anshu Jayal, Oscar Dillon Jr. and I.S. Jawahir.
11:20 - 11:40	<b>A Viscoplastic Material Model Based on Overstress for the Simulation of Incremental Sheet Forming of Thermoplastics</b>  Sammer Alkas Yonan, Peter Haupt, Lukas Kwiatkowski, Volker Franzen, Alexander Brosius and A. Erman Tekkaya.	<b>Manufacturing of a Complex Preform by RTM. Processes Parameters and Quality of the Part.</b>  Damien Soulat, Gilles Hivet, Romain Agogue and Aurélie Cordier-Telmar.	<b>An in-plane tensile test for rheological and formability identification : comparison between experimental and numerical FLC</b>  Lionel Léotoing, Dominique Guines and Eric Ragneau.	<b>A multi-scale friction model framework for full scale sheet forming simulations</b>  Johan Hol, Timo Meinders and Han Huetink.	<b>Machining of Micro Dimples in Milling for Functional Surfaces</b>  Takashi Matsumura and Satoru Takashi.
11:40 - 12:00	<b>The large strain response of polypropylene in multiaxial stretching and stress relaxation.</b>  John Sweeney, P Caton-Rose, P E Spencer, C O'Connor, P J Martin and G. Menary	<b>FE-Simulation of the Diaphragm Draping Process for NCF</b>  Daniel Leutz, M. Kluepfel, F. Dumont, R.Hinterhoelzl, K. Drechsler and C. Weimer	<b>Formability analysis of aluminum alloy sheets at elevated temperatures with numerical simulation based on the M-K method</b>  Reza Bagheriasl, Kamyar Ghavam and Michael Worswick.	<b>Predicting the Occurrence of Cosmetic Defects in Automotive Skin Panels</b>  Sumit Hazra, David Williams, Rajat Roy, Richard Aylmore, Martin Allen and Dominic Hollingdale.	<b>Micro Cutting Process of Ultra Fine Grain Steels</b>  Takafumi Komatsu, Takeshi Matsumura, Tomoaki Yoshino and Shiro Torizuka.
12:00 - 12:20	<b>Development of a Constitutive Model of Polypropylene for Thermoforming</b>  Ciaran O'Connor, Peter Martin, G. Menary, J. Sweeney, P. Caton-Rose and P. Spencer	<b>Preparation and Properties of Polyphenylene Sulfide/Multi-walled Carbon Nanotube Composites</b>  Zhenyu Jiang, Saul Buchanan, Rauri Mccool, Peter Hornsby and Adrian Murphy.	<b>Hole Expansion of Aluminum Alloys for the Automotive Industry</b>  Matt Stanton, Rahul Bhattacharya, Ian Dargue, Richard Aylmore and Geraint Williams.	<b>Flatness Defects after Stretching: a Numerical Analysis of Levelling</b>  Norman Mathieu, Régis Dimitriou, Michel Potier-Ferry and Hamid Zahrouni.	<b>Vapor-melt Ratio in Laser Fine Cutting of Slot Arrays</b>  Xuyue Wang, wenji Xu and lianji wang.
12:20 - 12:40	<b>Modelling Viscoelastic Behaviour of Polymer by A Mixed Velocity, Displacement Formulation – Numerical and Experimental Results</b>  Vu Thu Pham, Luisa Silva, Hugues Digonnet, Christelle Combeaud, Noelle Billon and Thierry Coupez.	<b>Permeability computation on a REV with an immersed finite element method</b>  Patrice Laure, Gregory Puaux, Luisa Silva and Michel Vincent.	<b>The influence of uniaxial prestrain on biaxial r-values in 7075-O aluminium alloy</b>  Nicola Anderson, Desmond Brown, Robert McMurray and Alan Leacock.	<b>Effect of Sheet Mechanical Properties on Forming Limits in Presence of a Through-Thickness Stress</b>  Morteza Nurcheshmeh and Daniel Green.	<b>Lower Restrictions for Sheet Metal Trimming Processes can Reduce Die Costs in The Automotive Industry</b>  Markus Hogg, Martin Rohleder and Karl Roll
12:40 - 14:00	Lunch (Sir William Whitla Hall)				

Time	Thursday 28th April (morning)				
08:30 - 09:10	<p style="text-align: center;">Plenary keynote (Room OG/007)</p> <p style="text-align: center;"><b>Coupling Crystal-Scale Behaviors with Metal Forming Simulations</b></p> <p style="text-align: center;">Prof. P. Dawson</p>				
Room	03/006A	03/006B	03/005	03/011	02/013
MS	Friction and wear in material processing	Forging and Rolling	New and Advanced Numerical Strategies for Material Forming	Nano Structured Materials and Microforming	Non Conventional Processes
Chair	A. Dubois	Bernd-Arno Behrens	E. Cueto	Z. Hu	Hans-Peter Schulze
09:10-09:30	<p><b>Frictional conditions between alloy AA6060 aluminium and tool steel</b></p> <p>Fredrik Widerøe and Torgeir Welø.</p>	<p><b>New Trends in Forging Technologies</b></p> <p style="text-align: center;">Mini Symposium Keynote</p>	<p><b>Adaptive Smoothed Finite Elements (ASFEM) for history dependent material models</b></p> <p style="text-align: center;">Mini Symposium Keynote</p>	<p><b>Incremental ECAP of Tubular Components - FE Simulation</b></p> <p style="text-align: center;">Mini Symposium Keynote</p>	<p><b>Superficial Abrasive Jet Machining</b></p> <p>Laurentiu Slatineanu, Margareta Coteata, Nicolae Pop, Irina Besliu and Vasile Braha.</p>
09:30-09:50	<p><b>On the correlation between model lubricant structure and its tribological behaviour</b></p> <p>Hélène Fay, Olivier Mondain-Monval, Virginie Ponsinet, Juliette Cayer-Barrioz, Denis Mazuyer, Steven Meeker, Patrice Le-Cornec and Sophie</p>	<p>Bernd-Arno Behrens, Thomas Hagen, Julian Knigge, Islam Elgaly, Tarik Hadifi and Anas Bouguecha.</p>	<p>Wouter Quak and Ton van den Boogaard.</p>	<p>Andrzej Rosochowski and Lech Olejnik.</p>	<p><b>A Combined Structural and Electromechanical FE Approach for Industrial Ultrasonic Devices Design</b></p> <p>Alain Schorderet, Alain Prenlelou and Enrico Colla.</p>
09:50-10:10	<p><b>Research into Oil-based Colloidal-Graphite Lubricants for Forging of Al-based Alloys</b></p> <p>Alexander Petrov, Pavel Petrov and Michael Petrov.</p>	<p><b>The Effect of transient change in strain rate on plastic flow behaviour of Al-Mg-Si alloy at elevated temperatures</b></p> <p>Pavel Petrov, Victor Voronkov, Konstantin Potapenko and Vladimir Ivanov.</p>	<p><b>A Voronoi based Nodal Integrated FEM Simulation of the Extrusion Process</b></p> <p>F. Greco, F. Gagliardi, L. Filice, D. Gonzalez, I. Alfaro, E. Cueto</p>	<p><b>Effect of Accumulative Roll Bonding on Plastic Flow Properties of Commercially Pure Zirconium</b></p> <p>Ilchat Sabirov, Jon Molina-Aldareguia, Ling Jiang, Michael Kassner and Teresa Perez-Prado.</p>	<p><b>Effects of Process Parameters on Ultrasonic Micro-Hole Drilling in Glass and Ruby</b></p> <p>Alain Schorderet, Emmanuel Deghilage and Kossi Agbeviade.</p>
10:10	<b>Coffee break (Sir William Whitla Hall)</b>				
Chair	L. Dubar	Bernd-Arno Behrens	S. Reese	A. Rosochowski	Hans-Peter Schulze
10:40 - 11:00	<p><b>Tribological Testing of Anti-Adhesive coatings for Cold Rolling Mill Rolls – Application to TiN-Coated Rolls</b></p> <p>Pierre Montmitonnet, Choumad Ould, Yves Gachon and Xavier Badiche.</p>	<p><b>Deformation Mechanisms In Tube Billets From Zr-1%Nb Alloy Under Radial Forging</b></p> <p>Yuriy Perlovich, Margarita Isaenkova, Vladimir Fesenko, Olga Krymskaya and Alexander Zavodchikov.</p>	<p><b>The Natural Neighbour Radial Point Interpolation Meshless Method Applied to the Non-Linear Analysis</b></p> <p>Lúcia Dinis, Renato Natal Jorge and Jorge Belinha.</p>	<p><b>Effect of Grain Refinement on the Mechanical Behaviour of an Al6061 Alloy at Cryogenic Temperatures</b></p> <p>Eva Moreno-Valle, Teresa Perez-Prado, Maxim Murashkin, Ruslan Valiev, Elena Bobruk and Ilchat Sabirov.</p>	<p><b>Machinability of a Stainless Steel by Electrochemical Discharge Microdrilling</b></p> <p>Margareta Coteata, Hans-Peter Schulze, Nicolae Pop, Irina Besliu and Laurentiu Slatineanu.</p>
11:00 - 11:20	<p><b>Numerical Predictions of Surface Damage During Bulk Forming Operations</b></p> <p>Emmanuelle Vidal-Salle and Jean-Claude Boyer.</p>	<p><b>The Experimental and Numerical Analysis on the Distortion of Parts Made of 20MnCr5 by Hot Metal Forming</b></p> <p>Ruediger Rentsch.</p>	<p><b>Natural Element simulation of free-surface, newtonian and non-newtonian flows</b></p> <p>Andres Galavis, Rosa Monge, David Gonzalez and Elias Cueto.</p>	<p><b>Thermal Stability and Microstructural Behavior of ECAP Processed Copper</b></p> <p>Oscar Fabian Higuera Cobos, Pablo Rodríguez calvillo and José María Cabrera.</p>	<p><b>Micro Machining of Different Steels with Closed Electrolytic Free Jet</b></p> <p>Matthias Hackert, Gunnar Meichsner, Henning Zeidler, Mike Zinecker and Andreas Schubert.</p>
11:20 - 11:40	<p><b>Numerical simulation of friction in metal forming using a halfspace model</b></p> <p>Franz Hauer, Hans Ulrich Vierzigmann, Kai Willner and Ulf Engel.</p>	<p><b>Numerical Modeling of axis-symmetrical cold forging process by “Pseudo Inverse Approach”</b></p> <p>Ali Halouani, Yuming Li, Boussad Abbes and Yingqiao Guo.</p>	<p><b>On the implementation of the continuum shell finite element SHBBS and application to sheet forming simulation</b></p> <p>Abdellah Salahouelhadj, Farid Abed-Meraim, Hocine Chalal and Tudor Balan.</p>	<p><b>Optimisation of the blank shape for micro deep drawing of rectangular parts</b></p> <p>Zhenyu Hu and Frank Vollertsen.</p>	<p><b>Thick Plate Rolling – a Numerical Approach in Comparison with Analytics and Experimental Data</b></p> <p>Hannes Prommer, Manuel Bojahr, Ralf Tschullik and Patrick Kaeding.</p>
11:40 - 12:00	<p><b>Numerical Simulations of Asperity Crushing - Application to cold rolling</b></p> <p>Yves Carretta, Nicolas Legrand, Maxime Laugier and Jean-Philippe Ponthot.</p>	<p><b>Forging complex parts without flash</b></p> <p>Michael Lücke, Andreas Krause and Bernd-Arno Behrens.</p>	<p><b>An ALE Based FE Formulation for the 3D Numerical Simulation of Fineblanking Processes</b></p> <p>Niko Manopulo, Longchang Tong and Pavel Hora.</p>	<p><b>Use of Monocrystalline Silicon as Tool Material for Highly Accurate Blanking of Thin Metal Foils</b></p> <p>Sven Hildering, Ulf Engel and Marion Merklein.</p>	
12:00 - 12:20	<p><b>Numerical simulation of lubrication mechanisms at mesoscopic scale</b></p> <p>Cédric Hubert, Niels Bay, Peter Christiansen, Rapahel Deltombe, Laurent Dubar, Mirentxu Dubar and André Dubois.</p>	<p><b>Evolutionary Topological Optimisation for Preform Design</b></p> <p>B. Lu, H. Ou and Z.S. Cui.</p>	<p><b>Improving Computational Performance through HPC Techniques: case study using DD3IMP in-house code</b></p> <p>Luis F. Menezes, Diogo M. Neto, Marta C. Oliveira and José Luis Alves.</p>	<p><b>Investigation into Formability of Micro-Tubes for the Manufacture of Micro-Hydroforming Components</b></p> <p>Christoph Hartl, Gerald Anyasodor and Joern Lungershausen.</p>	
12:20 - 12:40			<p><b>A Two-Scale FE2 Approach for Simulation of Forming Processes for Polymer Nanocomposites</b></p> <p>Lukasz Figiel.</p>	<p><b>Influence of Micro-rivet Manufacturing Process on Quality of Micro-Joint</b></p> <p>Wojciech Presz and Robert Cacko.</p>	
12:40 - 14:00	<b>Lunch (Sir William Whitla Hall)</b>				

Time	Thursday 28th April (afternoon)				
14:00 - 14:40	<p style="text-align: center;">Plenary keynote (Room OG/007)</p> <p style="text-align: center;"><b>Current and future trends in design, simulation and automatic optimization of manufacturing processes</b></p> <p style="text-align: center;">Dr. G. Duffet</p>				
Room	02/018	02/026	02/017	02/025	02/011
MS	Structures, Properties and Processing of Polymers	Composites Forming Processes	Materials Behaviour and Formability	Heat Transfer Modelling	Semi Solid Processes
Chair	F. Schmidt	S. Lomov	D. Banabic	K. Mocellin	A. Forn
14:40 - 15:00	<b>Identification of Rubber-like Behaviour from Non Homogeneous Multiaxial Testing</b>  Mourad Idjeri, Luc Chevalier and Hocine Bechir.	<b>Experimental Analysis and Numerical Simulation of Tensile Behaviour of TiNi Shape Memory Alloy Fibres Reinforced Epoxy Matrix Composite at High Temperatures</b>  Sahli Mohamed Lakhdar and Necib Brahimi.	<b>Application of Homogeneous Potentials for the Modeling of the Bauschinger Effects in Ultra Low Carbon Steel</b>  Mini Symposium Keynote  Jin-Jin Ha, Jin-Woo Lee, Myoung-Gyu Lee, Frédéric Barlat and Toshihiko Kuwabara.	<b>Identification of the crystallization kinetic parameters of a semi-crystalline polymer by using PVTa measurement</b>  Xavier Tardif, Vincent Sobotka, Nicolas Boyard and Didier Delaunay.	<b>Thermal Fatigue Testing of Duplex-Coated Hot Work Tool Steels at Elevated Temperatures</b>  Yucel Birol.
15:00 - 15:20	<b>Measuring Thermoforming Behaviour</b>  Walter Michaeli, Christian Hopmann, Lennart Ederleh and Maren Begemann.	<b>Design And Formability Of A New Composite Material</b>  Christian Bolay and Mathias Liewald.		<b>Thermal and Kinetic Modelling of Elastomer Flow - Application to an Extrusion Die</b>  Julien Launay, Nadine Allanic, Pierre Mousseau and Rémi Deterre.	<b>High Temperature Oxidation Behavior of HVOF-sprayed Coatings for Use in Thixoextrusion Processes</b>  Josep A. Picas, Miquel Punset, Sergi Menargues, Manel Campillo, M. Teresa Baile and Antonio Forn.
15:20 - 15:40	<b>The effect of the stretching of PLA extruded films on their crystallinity and gas barrier properties</b>  Alain Guinault, Gary Menary, Cécile Courgneau, David Griffith, Violette Ducruet, Valérie Miri and Cyrille Sollogoub.		<b>Draw-Bending Analysis of a Cold Rolled DP980 Steel Sheet</b>  Rahul K. Verma, Nobuyasu Noma, Kwansoo Chung and Toshihiko Kuwabara.	<b>Infrared Curing Simulations of Liquid Composites Molding</b>  Sawsane Nakouzi, Johann pancrace, Fabrice Schmidt, Yannick Le Maout and Florentin Berthet.	<b>Laser Surface Modification of H13 Die Steel using Different Laser Spot Sizes</b>  Syarifah Nur Aqida, Sumsun Naher and Dermot Brabazon.
15:40	Coffee break (Sir William Whitla Hall)				
MS	Structures, Properties and Processing of Polymers	Light-weight Design and Energy Efficiency in Metal Forming	Materials Behaviour and Formability	Heat Transfer Modelling	Semi Solid Processes
Chair	P.J. Martin	E. Tekkaya	D. Banabic	K. Mocellin	Y. Birol
16:10 - 16:30	<b>On The Use Of Prototype Industrial Flows To Identify Viscoelastic Constitutive Equations For Polymer Melts</b>  Rudy Valette, Ghaliya Boukellal, Audrey Durin and Jean-François Agassant.	<b>Design for Manufacturing for Energy Absorption Systems</b>  Antonio Del Prete, Teresa Primo, Gabriele Papadia and Barbara Manisi.	<b>Analytical Characterization of Mechanical Properties of Bimetallic Clad Sheets</b>  Kangha Woo, Taejoon Park, Daeyong Kim, Chulhwan Lee, Ji Hoon Kim, Young Seon Lee and Kwansoo Chung.	<b>Estimation of three-dimensional distribution of heat flux on the pin frictional surface during a pin on disc test</b>  Damien Meresse, Monica Siroux, Michel Watremez, Souad Harmand and Laurent Dubar.	<b>Characterisation of Laser Modified WC-CoCr Coatings</b>  Evans Chikarakara, M. Punset, Josep Picas, Dermot Brabazon and Sumsun Naher.
16:30 - 16:50	<b>No-flow temperature and solidification in injection molding simulation</b>  Gianluca Mannella, Vincenzo La Carrubba, Valerio Brucato, Wim Zoetelief and Gerard Haagh.	<b>Environmental Analysis of the Air Bending Process</b>  Karel Kellens, Wim Dewulf and Joost R. Dufloy.	<b>An Analytical Approach For Earing In Cylindrical Deep Drawing Based On Uniaxial Tensile Test Results</b>  Hans Mulder and Henk Vegter.	<b>Thermal Contact Resistance Estimation: Influence of the Pressure Contact and the Coating Layer during a Hot Forming Process</b>  Bakri Abdul Hay and Brahim Bourouga.	<b>Anodizing Effect on the Wear and Corrosion Behavior of EN AC-46500 Components Produced by Semi-Solid Rheocasting (SSR)</b>  Antonio Forn, Maria Teresa Baile, Josep Anton Picas, Enrique Martin and Sergi Menargues.
16:50 - 17:10	<b>Setting the operating conditions in Free Form Extrusion via modeling of Heat Transfer</b>  Sidonie Costa, Fernando Duarte and José António Covas.	<b>Manufacturing of SiCp reinforced magnesium composite tubes by hot extrusion processes</b>  Yeong-Maw Hwang, Song-Jeng Huang and Yu-San Huang.	<b>Identification of an advanced constitutive model of Magnesium alloy AZ31B</b>  Zhigang Liu and Elisabeth Massoni.	<b>Induction Heating Process: 3D Modeling and Optimisation</b>  R. Naar and F. Bay.	<b>Fracture toughness and corrosion resistance of semisolid AISI5 alloy</b>  Annalisa Pola, Lorenzo Montesano, Roberto Roberti and Marcello Gelfi.
17:10 - 17:30	<b>Simulation Of Micro Injection Moulding With Emphasis On The Formulation Of Feedstock Viscosity: Use Of Non-equilibrium Molecular Dynamics For The Determination Of Viscosity Of Multi-body Fluid</b>  Guillaume Larsen, Zhiqiang Cheng, Thierry Barriere, Baosheng Liu and Jean-Claude Gelin.	<b>Study of Forming of Magnesium Alloy by Explosive Energy</b>  Liqun Ruan, Kazuyuki Hokamoto, Marumo Yasuo and Yahiro Ititoku.	<b>Experimental investigation of anisotropy evolution of AZ31 magnesium alloy sheets under tensile loading</b>  Dariush Tari and M. J. Worswick		
17:30 - 18:00	General Assembly (room OG/007)				
19:30	Banquet (Europa Hotel)				

Time	Thursday 28th April (afternoon)				
14:00 - 14:40	<p style="text-align: center;">Plenary keynote (Room OG/007)</p> <p style="text-align: center;"><b>Current and future trends in design simulation and automatic optimization of manufacturing processes</b></p> <p style="text-align: center;">Dr. G. Duffet</p>				
Room	03/006A	03/006B	03/005	03/011	02/013
MS	Friction and Wear in Material Processing	Forging and Rolling	Extrusion and Drawing	Nano Structured Materials and Microforming	Integrated Design, Modelling and Reliability Assessment in Forming
Chair	M. Watremez	K. Voges-Schwieger	A. E. Tekkaya	G. Berti	R. Alves de Sousa
14:40 - 15:00	<p><b>The Influence of High Pressure Thermal Behavior on Friction-induced material transfer During Dry Machining of Titanium</b></p> <p>Hisham Abdel-aal and M. El Mansori.</p>	<p><b>Oxide Fracture Mechanisms in Descaling of Steel Strips on the Hot Strip Mill</b></p> <p>Pierre Montmitonnet, Minghao Zhang, Bo Liu, Claire Grenier, Michel Picard and Jean-Luc Borean.</p>	<p><b>Co-extrusion of Discontinuously, Non-centric Steel-reinforced Aluminum</b></p> <p>Annika Foydl, Matthias Haase, Nooman Ben Khalifa and A. Erman Tekkaya.</p>	<p><b>Process Chains in Microforming Technology Using Scaling Effects</b></p> <p style="text-align: center;">Mini Symposium Keynote</p>	<p><b>A Virtual Test Approach to Incorporate Materials and Manufacturing Processes to Aid Design choices in High Performance Composites</b></p> <p>Cesar Gonzalez-Murillo and Mark Price.</p>
15:00 - 15:20	<p><b>Abrasive Wear Resistance of Tool Steels Evaluated by the Pin-on-Disc Testing</b></p> <p>Jose Bressan and Roberto Schopf.</p>	<p><b>Quality parameters defined by Chebyshev polynomials in cold rolling process chain</b></p> <p>Mika Judin, Jari Nylander, Jari Larkiola and Martti Verho.</p>	<p><b>Characterization Of Flow Stress Of Different AA6082 Alloys By Means Of Hot Torsion Test</b></p> <p>Lorenzo Donati and Mohamad El Mehtedi.</p>	<p>Bernd Kuhfuss, Kirsten Tacht, Florian Weikert, Frank Vollertsen, Andreas Stephen and Eric Mouri.</p>	<p><b>A Digital Methodology for the Design Process of Aerospace Assemblies with Sustainable Composite Processes &amp; Manufacture</b></p> <p>William McEwan and Joseph Butterfield.</p>
15:20 - 15:40	<p><b>Friction and wear mechanisms study on a newly developed High Speed Tribometer</b></p> <p>Damien Meresse, Michel Watremez, Monica Siroux, Laurent Dubar and Souad Harmand.</p>	<p><b>Investigation on Replication of Microstructures on Flexible Substrates by Roll Embossing Process</b></p> <p>Sahli Mohamed, Gelin Jean-Claude and Barrière Thierry.</p>	<p><b>Finite Element Modelling of Complex Thin Profile Extrusion</b></p> <p>Nikolay Biba, Andrey Lishny and Sergei Stebunov.</p>	<p><b>Simulation of a Full Forward Extrusion Process from Metal Strip</b></p> <p>Marion Merklein, Tommaso Stellin and Ulf Engel.</p>	<p><b>Integrating Materials, Manufacturing, Design and Validation for Sustainability in Future Transport Systems</b></p> <p>Mark Price, Adrian Murphy, Joe Butterfield, Rauri Mccool and Robert Fleck.</p>
15:40	Coffee break (Sir William Whitla Hall)				
MS	Friction and Wear in Material Processing	Forging and Rolling	Extrusion and Drawing	Nano structured materials and microforming	Integrated design, modelling and reliability assessment in forming
Chair	L. Dubar & P. Montmitonnet	K. Voges-Schwieger	E. Valberg	C. Hartl	A. Andrade-Campos
16:10 - 16:30	<p><b>Anti-friction Coating for Drilling of Green Austempered Ductile Iron (ADI) grade</b></p> <p>Anil Meena, Mohamed El Mansori, Patrick Ghidossi and Ali Mkaddem.</p>	<p><b>Finite element modelling of process-integrated powder coating by radial axial rolling of rings</b></p> <p>Jan Frischkorn, Reza Kebriaei, Stefanie Reese, Heiko Moll, Werner Theisen, Tobias Husmann and Horst Meier.</p>	<p><b>Investigation And Prediction of Grain Texture Evolution in AA6082</b></p> <p>Antonio Segatori, Annika Foydl, Lorenzo Donati, Nooman Ben Khalifa, Alexander Brosius, Luca Tomesani and Erman Tekkaya.</p>	<p><b>Hydrostatic Microextrusion of Steel and Copper</b></p> <p>Guido Berti, Manuel Monti and Luciano D'Angelo.</p>	<p><b>Net-Shape Forging of Aerofoil Blade based on Flash Trimming and Compensation methods</b></p> <p>B Lu, H. Ou and C. Armstrong.</p>
16:30 - 16:50	<p><b>New Approach of Frictional Behaviour for Modelling of High Speed Machining</b></p> <p>Michel Watremez, Laurent Dubar and Julien Brocaill.</p>	<p><b>Comparison of the Performance of Lubricants in Rolling Based on Temperature Measurement</b></p> <p>Vinod Yadav, Arbind Kumar Singh, Shrikrishna N. Joshi and Uday S. Dixit.</p>	<p><b>Studies of Porthole Extrusion through Dies with Different Sizes of Portholes</b></p> <p>Yawar Abbas Khan and Henry Sigvardt Valberg.</p>	<p><b>Semi Solid Molding Process of High Viscosity</b></p> <p>Achim Frick, Arif Rochman and Peter Martin.</p>	<p><b>On a New Optimization Approach for the Hydroforming of Defects-Free Tubular Metallic Parts</b></p> <p>João Caseiro, Robertt Valente, Gil Andrade-Campos and Renato Natal Jorge.</p>
16:50 - 17:10		<p><b>Identification of Material Properties Based on Rolling Process at 4-Stand Laboratory Mill</b></p> <p>Danuta Szeliga, Marcel Graf, Rudolf Kawalla and Maciej Pietrzyk.</p>	<p><b>Determining The Weld Quality In Extrusion Welding</b></p> <p>Henry Valberg, Tony Melkild and Janis Kandis.</p>	<p><b>The Effects of Ablative Coating Thickness at Various Laser Intensities and Multiple Laser Pulses on Thin Copper Sheet Formability in High Strain Rate Laser Shock Forming</b></p> <p>Balasubramanian Nagarajan, Sylvie Castagne, Zhongke Wang, Choon Keat Lai, Xincai Wang and Hongyu Zheng.</p>	<p><b>Multi-step stamping tools design method based on springback compensation</b></p> <p>Mohamed Azaouzi, Gaston Rauchs and Salim Belouettar.</p>
17:10 - 17:30		<p><b>A Study on Flexible Roll Formed Products Accuracy by Means of FEA and Experimental Tests</b></p> <p>Sebastian Berner, Martin Storbeck and Peter Groche.</p>			
17:30 - 18:00	General Assembly (room OG/007)				
19:30	Banquet (Europa Hotel)				

Time	Friday 29th April (morning)				
09:00 - 09:35	Plenary (Room OG/007) <b>Scientific Prize Winner 1</b> Winner to be announced at conference				
09:35 - 10:10	Plenary (Room OG/007) <b>Scientific Prize Winner 2</b> Winner to be announced at conference				
10:10	Coffee break (Sir William Whitla Hall)				
Room	02/018	02/026	02/017	02/025	02/011
MS	Structures, Properties and Processing of Polymers	Effects of Bending and Shear on Sheet Formability	High Temperature Sheet Forming	Heat Transfer Modelling	Semi Solid Processes
Chair	P.J. Martin	T. van den Boogaard	S. Leen	V. Sobotka	A. Rassili
10:40 - 11:00	<b>Comparative Study Of Various Grades Of Polyethylene By Differential Scanning Calorimetry (DSC) Correlated With Raman Spectroscopy</b>  Richard Jumeau, Patrice Bourson, Michel Ferriol, François Lahure, Franck Ducos and Jérôme Ligneron.	<b>The Stabilizing Effect of Bending-Under-Tension</b>  Wilko C. Emmens and Ton van den Boogaard.	<b>Ti6Al4V Superplastic Forming for the Production of an Aircraft Part</b>  Luigino Filice, Francesco Gagliardi, Raffaele Rosa and Saverio Lazzaro.	<b>Competition of Flow and Thermal Effects During Crystallization of Polymers: Influence on Morphology</b>  M'hamed Boutaous, Matthieu Zinet, François Rousset and Patrick Bourgin	<b>An analysis of HS6-5-2 steel viscosity in the semi-solid state</b>  Krzysztof Solek, Marta Korolczuk-Hejnak, Wojciech Slezak and Miroslaw Karbowniczek.
11:00 - 11:20	<b>Raman spectroscopy of the crystallinity of polystyrene</b>  Nadège Brun, Patrice Bourson, Samuel Margueron and Michel Duc.	<b>Experimental Characterization of Stretch-Bending Formability of AHSS Sheets</b>  Daniela Kitting, Aldo Ofenheimer, Heinrich Pauli and Edwin T. Till.	<b>Process design of press hardening with gradient material property influence</b>  Reimund Neugebauer, Frank Schieck and Anja Rautenstrauch.	<b>A Computational and Experimental Analysis of Quenching stress and Distortions in Hypoeutectoid and Eutectoid Steels</b>  Pierpaolo Carlone and Gaetano S. Palazzo.	<b>Wall Slip of Semi-Solid A356 in Couette Rheometers</b>  Siri Harboe and Michael Modigell.
11:20 - 11:40	<b>Study, by Raman Spectroscopy, of the microstructure evolution of isotactic polypropylene during tensile test and relaxation : Measuring the chains orientation.</b>  Samuel Chaudemanche, Marc Ponçot, Julien Martin, Jean-Marie Hiver, Patrice Bourson and Abdesselam Dahoun.	<b>Design, Analysis and Application of a Novel Test for Sheet Metal Forming Limits under Non-Planar Stress States</b>  Julian Allwood and Daniel Shouler.	<b>On the thermomechanical modelling of multiphase materials during heat treatments and subsequent forming</b>  João Caseiro, João Oliveira and António Andrade-Campos.	<b>Residual Stresses in DC cast Aluminum Billet: Neutron Diffraction Measurements and Thermomechanical Modeling</b>  Jean-Marie Drezet, A. Evans and T. Pirling	<b>Positive effect of Sc and Zr on globular microstructure formation in AA7075 thixoforming feedstock</b>  Lukasz Rogal, Jan Dutkiewicz, Lidia Litynska-Dobrzanska, Michael Modigell and Barbara Olszowska-Sobieraj.
11:40 - 12:00	<b>Influence of process parameters on the weld lines formation in rapid heat cycle molding</b>  Marco Fiorotto and Giovanni Lucchetta.	<b>Investigations On Bendability of Lightweight Materials For Various Load Paths</b>  Ralf Denninger, Mathias Liewald, Christian Held and Manfred Sindel.	<b>Analysis of the Capabilities of a Hyperbolic Constitutive Equation for Al-5083 Superplastic Aluminium Alloy</b>  Nagore Otegi, L. Galdos, I. Hurtado and S.B. Leen.	<b>Numerical Study of a Cold Particle Submitted to Mixed Convection</b>  Cédric Le Bot.	<b>Effect of Ultrasonic Treatment on the Microstructure of A201 Aluminium Alloy for Thixoforming</b>  Sinan Kandemir, Helen V. Atkinson and Simon D.A. Lawes.
12:00 - 12:20	<b>Interfacial Adhesion between an Amorphous Polymer ( Polystyrene ) and a Semi-crystalline Polymer (Polyamide-nylon 6)</b>  Yongsok Seo, Kyoungwan Oh and Soon Man Hong.				<b>Experimental Investigations And Numerical Modelling of 210CR12 Steel in Semi-Solid State</b>  Piotr Maciol, Wladyslaw Zalecki, Roman Kuziak, Aleksandra Jakubowicz and Stanislaw Weglarczyk.
12:20 - 12:40	<b>Shrinkage Study of Polypropylene Films Laminated on Steel – Influence of the Conformation Processes.</b>  Marc Ponçot, Julien Martin, Abdesselam Dahoun, Jean Marie Hiver, Patrice Bourson and Didier Verchere.				
12:40 - 14:00	Lunch and Farewell drinks (Sir William Whitla Hall)				
14:00	Optional tours of Belfast and The Causeway Coast				

Time	Friday 29th April (morning)				
09:00 - 09:35	Plenary (Room OG/007) <b>Scientific Prize Winner 1</b> Winner to be announced at conference				
09:35 - 10:10	Plenary (Room OG/007) <b>Scientific Prize Winner 2</b> Winner to be announced at conference				
10:10	Coffee break (Sir William Whitla Hall)				
Room	03/006A	03/006B	03/005		02/013
MS	Friction and Wear in Material Processing	Light-weight Design and Energy Efficiency in Metal Forming	Extrusion and Drawing		Integrated Design, Modelling and Reliability Assessment in Forming
Chair	P. Montmitonnet	A. E. Tekkaya / S. Chatti	L. Donati		R. Valente
10:40 - 11:00	<b>Friction Tests in Magnesium Tube Hydroforming at Elevated Temperatures</b> Yeong-Maw Hwang, Wang and Kuo.	<b>Reducing CO2 Emissions through Lightweight Design and Manufacturing</b> Mini Symposium Keynote	<b>Formability of Wrought Magnesium Alloys by Hot Compression Testing and Laboratory-Scale Extrusion</b> Qiang Ge and Maurizio Vedani.		<b>Numerical and Experimental Studies of Single Point Incremental Forming</b> Sonia Marabuto, Jose Sena, Daniel Afonso, Miguel Martins, Rodrigo Coelho, Jorge Ferreira, Robertt Valente and Ricardo Alves De Sousa.
11:00 - 11:20	<b>Influence of Temperature on AA6014 Alloy Tribological Behaviour in Stamping Operations</b> Andrea Ghiotti, Francesco Sgarabotto and Stefania Bruschi.		<b>Creep deformation modeling of a tool steel with a tempered martensitic structure used for extrusion dies</b> Barbara Reggiani, Lorenzo Donati and Luca Tomesani.		<b>Evaluation and Reduction of Machine Difference in Press Working with Utilization of Dedicated Die Support Structure and Numerical</b> Takahiro Ohashi.
11:20 - 11:40	<b>On the development of friction models for the numerical simulation of sheet metal forming processes by combining local and global experimental test results</b> Marta C. Oliveira, José L. Alves, Luis F. Menezes and Amílcar Ramalho.	<b>Adjustment of Design Limited Imperfections for Transportation Vehicles</b> Dr. Kathrin Voges-Schwieger, Dr. Sven Hübner and Prof. Dr.-Ing. Bernd-Arno Behrens.	<b>Investigation of the Influence of Tool Geometry on Effective Strain Distribution in Full Forward Extrusion</b> Marion Merklein, Franck Tresor Ndzomssi Zebaze and Ulf Engel.		<b>A new method for advanced virtual design of stamping tools for automotive industry: application to nodular cast iron EN-GJS-600-3</b> Khalil Ben Slima, Luc Penazzi and Catherine Mabru.
11:40 - 12:00	<b>Tribology and Tool Wear of Hot Dip Galvanized Zinc Magnesium Alloys on Cold Rolled Steel Sheets</b> Anna Elisabeth Raab, Erich Berger, Johann Freudenthaler, Franz Leomann and Christian Walch.	<b>Optimization of Design and Manufacturing Process of Metal Foam Filled Anti-Intrusion Bars</b> Andrea Villa, Matteo Strano and Valerio Mussi.	<b>Study Of The Wet Multipass Drawing Process Applied On High Strength Thin Steel Wires</b> Johann Thimont, Eric Felder, Christian Bobadilla, Pascal Buessler, Nicolas Persem and Jean-Pierre Vaubourg.		<b>Automated Simulation Tool for Optimising Manufacturing Routes Including Friction Welding</b> Alister Simpson, Simon Leefe and James Farrar
12:00 - 12:20		<b>The Effect of Extrusion Ratio and Material Flow on the Mechanical Properties of Aluminum Profiles Solid State Recycled from 6060 Aluminum Alloy Chips</b> Volkan Güley, Nooman Ben Khalifa and A. Erman Tekkaya.	<b>Simulation of drawing of small stainless steel platinum medical tubes - Influence of the tool parameters on the forming limit.</b> Camille Linardon, Jean-Sébastien Affagard, Gregory Chagnon, Denis Favier and Benoit Gruez.		
12:20 - 12:40		<b>First Results of Energy Saving at Process Redesign of Die Forging Al-Alloys</b> Tomaz Pepelnjak, Karl Kuzman and Anton Kokol.			
12:40 - 14:00	Lunch and Farewell drinks (Sir William Whitla Hall)				
14:00	Optional tours of Belfast and The Causeway Coast				