### 4M/ICOMM2015 Schedule

#### Monday March 30 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>18:15-21:00</td>
<td>Welcome Party and Guided Tour (all welcome) Castello Sforzesco, Piazza Castello</td>
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</tbody>
</table>

#### Tuesday March 31 2015

**Assolombarda Congress Centre**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>08:30-09:00</td>
<td>Registration</td>
</tr>
<tr>
<td>09:00-09:20</td>
<td>Plenary</td>
</tr>
<tr>
<td>09:20-10:20</td>
<td>Key Note</td>
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<tr>
<td></td>
<td>Professor Christian Hopmann</td>
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<tr>
<td></td>
<td>Process development for the production of plastic parts with micro features</td>
</tr>
<tr>
<td>10:20-10:50</td>
<td>Coffee break</td>
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</table>

#### Track 1 (Sala A): Micro EDM process performance

<table>
<thead>
<tr>
<th>Session Number</th>
<th>Title</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td>004</td>
<td>Comparison EDM / Dry-EDM in microdrilling process</td>
<td>Cristina Merla, Giancarlo Maccarini, Gianluca D'Urso and Chiara Ravasio University of Bergamo, Antonio Surleraux Cardiff University</td>
</tr>
<tr>
<td>005</td>
<td>Micro-EDM-milling and -sinking combined approach for the fabrication of micro-components</td>
<td>Francesco Modica, Valeriano Marrocco, Vito Basile and Irene Fassi, ITIA CNR</td>
</tr>
<tr>
<td>006</td>
<td>Influence on Pulse Width on Micro Electrical Discharge Machining of Non-Conductive Silicon Carbide</td>
<td>Florian Zeller, Nirdesh Ojha, Claas Müller, Holger Reinecke, University of Freiburg</td>
</tr>
<tr>
<td>007</td>
<td>Evaluation of the Mechanical Properties of Non-Conductive Ceramics Machined with EDM using AE</td>
<td>Nirdesh Ojha, Florian Zeller, Claas Müller, Holger Reinecke University of Freiburg</td>
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</tbody>
</table>

#### Track 2 (Sala B): Micro Machining Process Performance

<table>
<thead>
<tr>
<th>Session Number</th>
<th>Title</th>
<th>Presenters</th>
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</thead>
<tbody>
<tr>
<td>033</td>
<td>Test for evaluating the performance of micro milling processes</td>
<td>Aldo Attanasio, Alessandro Garbellini and Elisabetta Geretti University of Brescia, Claudio Giardini University of Bergamo</td>
</tr>
<tr>
<td>034</td>
<td>Analysing machining errors resulting from a micromilling process using CT measurement and process simulation</td>
<td>Petra Kersting, Sven Odendah, Tobias Siebrecht, Eugen Krebs, TU Dortmund University, Simone Carmignato, Filippo Zanini, University of Padova</td>
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</tbody>
</table>

#### Track 3 (Sala C): Metal Forming I

<table>
<thead>
<tr>
<th>Session Number</th>
<th>Title</th>
<th>Presenters</th>
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</thead>
<tbody>
<tr>
<td>052</td>
<td>Dynamic Model of One-Dimensional Piezoelectric Actuators in Micro-forming</td>
<td>Peng Hu, Teguh Tjahjowidodo, Sylvie Castagne Nanyang Technological University</td>
</tr>
<tr>
<td>053</td>
<td>Effect of tribological condition on forming minute parts by micro-meso extrusion of A6063 alloy</td>
<td>N. Takatsuji, University of Toyama, K. Dohda, Northwestern University, T. Funazuka University of Toyama</td>
</tr>
<tr>
<td>054</td>
<td>Replication of prismatic microstructures by electromagnetic embossing</td>
<td>Lasse Langstädtler, Arne Bloem, Christian Schenck, Bernd Kuhfuss University of Bremen, Lars Schönemann University of Bremen</td>
</tr>
<tr>
<td>055</td>
<td>Influence of lubricant viscosity on punch force in strip drawing test</td>
<td>Hendrik Tetzel Annika Bohlen BIAS - Bremer Institut für angewandte Strahltechnik, Frank Vollertsen BIAS - Bremer Institut für angewandte Strahltechnik and University of Bremen</td>
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10:50-12:50 Coffee break
<table>
<thead>
<tr>
<th>Time</th>
<th>Track 5 (Sala A) Laser Micro Processing I</th>
<th>Track 2 (Sala B) Micro Machining Modelling and Simulation</th>
<th>Track 3 (Sala C) Metal forming II</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:50-12:50</td>
<td>Experimental Investigation of the Effect of Dielectric Conductivity on Characteristics of Micro-EDM Process</td>
<td>An Experimental Study on Micro Milling of PZT deposited Si wafer</td>
<td>Experimental Study of a Microforging Process of Parallel Ribs from Metal Strip</td>
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<td></td>
<td>Soham S. Mujumdar, Shiv G. Kapoor, University of Illinois at Urbana-Champaign, USA</td>
<td>Ken-Han Chen, Ming-Chyuan Lu, Yao-Yang Tsai, Chia-Chie Wu and Kuan-Ming Li National Taiwan University</td>
<td>Tommaso Stellin, Marion Merklein and Ulf Engel Institute of Manufacturing Technology, Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU)</td>
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<td></td>
<td>Davide Curreli University of Illinois at Urbana-Champaign, USA</td>
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<tr>
<td>12:50-14:00</td>
<td>Improvements in debris flushing in micro-electric discharge machining using atomized dielectric spray</td>
<td>Rapid and Autonomous Optical Characterization of Tool Diameter and Cutting Edge Radius on Micro End Mills</td>
<td>Dimensional accuracy and deformation behaviors in meso-scaled progressive forming of two-level flanged parts</td>
</tr>
<tr>
<td></td>
<td>Arvind Pattabhiraman, Deepak Marla and Shiv Kapoor University of Illinois at Urbana-Champaign, Urbana, USA</td>
<td>William Jen, Mechanical Frank E. Pfefferkorn and Justin D. Morrow University of Wisconsin</td>
<td>M.W. Fu, B. Meng C.M., Fu The Hong Kong Polytechnic University</td>
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<td>Nicola J. Ferrier University of Chicago</td>
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<tr>
<td>14:00-15:40</td>
<td>Analysis of Shape Geometry of Micro-Channels Fabricated by Laser Milling</td>
<td>Force Modelling in micro-milling of a hard tool steel</td>
<td>Microstructure change by micro metal forming of sheet iron</td>
</tr>
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<td></td>
<td>Sabina Campanelli, Nicola Contuzzi, Fulvio Lavecchia, Gianluca Perco, Politecnico di Bari</td>
<td>R. Piquard, A. Gilbin, S. Thibaud, M. Fontaine, FEMTO-ST</td>
<td>Motoki Terano, Yuji Hirosawa, Masahiko Yoshino, Tokyo Institute of Technology</td>
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<td>Shiro Torizuka, Department of Materials Science and Chemistry University of Hyogo</td>
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<tr>
<td></td>
<td>Manufacture of Micro-Hole Array for Planar Porous Aerostatic Bearing with Dual Restrictive Layer Using Picosecond Laser</td>
<td>A Predictive Model for Thin Plate Deformation in Surface Milling</td>
<td>Elastic-plastic damage behavior identification in micro scale length from instrumented micro-single point incremental forming</td>
</tr>
<tr>
<td></td>
<td>Yu-Ting Lyu, Kuo-Yu Chien, Fu-Chuan Hsu, Hsin-Chung Li Metal Industries Research &amp; Development Centre (MirRDC)</td>
<td>Jium-Jyh J. Wang and Chieh-Cheng Lin, National Cheng Kung University, Taiwan</td>
<td>Ramzi Ben Hmida, FEMTO-ST Institute, Besançon, France.</td>
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<tr>
<td></td>
<td>Tien-Ching Chen GeniRay Technology Corporation</td>
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<td>Fabrice Richard, Université de Franche-Comté, Sébastien Thibaud, Pierre Malécot, ENSMM</td>
</tr>
<tr>
<td>083</td>
<td>Single step generation of microstructured hydrophilic Aluminum surface by ns laser</td>
<td>Cutting force prediction in micro orthogonal cutting by an analytical-numerical coupled model</td>
<td>Scalability of Conventional Tube Hydroforming Processes from Macro to Micro/Meso</td>
</tr>
<tr>
<td>085</td>
<td>Improving the flexibility of micro injection moulding by exploiting fs-laser micro milling to realize mould inserts with complex 3D microfeatures</td>
<td>Performance of micro end milling force prediction on Aluminum 6061-T6 with 3D FE simulation</td>
<td>Improved Tool Performance in Microblanking of Thin Metal Foils Through Defined Cutting Edge Modification of Silicon Punches</td>
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<tr>
<td></td>
<td>A. Ancona FN CNR, Institute for Photonics and Nanotechnologies</td>
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<td></td>
<td>A. Volti &amp; F. Di Niso IFN CNR, Institute for Photonics and Nanotechnologies, National Research Council, Bari, &amp; University of Bari</td>
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<tr>
<td>086</td>
<td>Improving laser microcutting quality of AZ31 Mg alloy by submerged cutting for manufacturing of biodegradable stents</td>
<td>Multiscale Analysis of Nano-Scale Elliptical Vibration Cutting via Molecular Dynamics Simulations</td>
<td>Investigation of Inhomogeneous Deformation Behavior of Pure Copper Foils in Micro Deep Drawing</td>
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<tr>
<td></td>
<td>Ali Gökhan Demir Barbara Previtali Politecnico di Milano</td>
<td>Lin Zhang, Li Zhang, and Ping Guo The Chinese University of Hong Kong</td>
<td>Dong Xianghuai, Zhou Xiongcai National Shanghai Jiao Tong University</td>
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<td>087</td>
<td></td>
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<td>Zhang Haiming Max-Planck-Institut für Eisenforschung</td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
<td>Chair</td>
<td>Title</td>
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<tr>
<td>15:40–16:00</td>
<td>Coffee break</td>
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<tr>
<td>16:00–17:40</td>
<td>Track 5 (Sala A) Laser Micro Processing II</td>
<td>José L. Ocaña, Technical University of Madrid, Spain</td>
<td>Microstructure of S7 Tool Steel after Pulsed Laser Micro Polishing</td>
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<tr>
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<td>Qinghua Wang, Mechanical Engineering Department, University of Wisconsin</td>
<td>Qinghua Wang, Mechanical Engineering Department, University of Wisconsin</td>
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<td>Justin D. Morrow, Frank E. Pfefferkom, Materials Science Program, University of Wisconsin</td>
<td>Justin D. Morrow, Frank E. Pfefferkom, Materials Science Program, University of Wisconsin</td>
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<tr>
<td></td>
<td>Track 7 (Sala B) Additive Manufacturing (5)</td>
<td>Lawrence Kulinsky, University of California-Irvine</td>
<td>An Electrokinetically-Driven Microfabrication Process for Additive Manufacturing Applications</td>
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<td>Victor Perez-Gonzalez, Matias Vazquez-Piñon, School of Engineering and Science, Tecnológico de Monterrey</td>
<td>Victor Perez-Gonzalez, Matias Vazquez-Piñon, School of Engineering and Science, Tecnológico de Monterrey</td>
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<td>Vinh Ho, Lawrence Kulinsky University of California Irvine</td>
<td>Vinh Ho, Lawrence Kulinsky University of California Irvine</td>
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<td></td>
<td>Track 10 (Sala C) Materials Testing</td>
<td>Kuniaki Dohda, Northwestern University, USA</td>
<td>Characterization analysis according to the filler metal types and the diffusion bonding copula shape conditions on the cemented carbide</td>
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<td>Bawi Jeong and Jeongwoo Park Chosun University</td>
<td>Bawi Jeong and Jeongwoo Park Chosun University</td>
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<tr>
<td>16:00–17:40</td>
<td>Track 5 (Sala A) Laser Micro Processing II</td>
<td>Judith Kumstel, John Flemmer Fraunhofer Institute for Laser Technology</td>
<td>Laser Polishing of Metallic Freeform Surfaces</td>
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<td></td>
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<td>André Temmler RWTH Aachen University, Chair for Laser Technology</td>
<td>Judith Kumstel, John Flemmer Fraunhofer Institute for Laser Technology</td>
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<tr>
<td></td>
<td>Track 7 (Sala B) Additive Manufacturing (5)</td>
<td>Aerosol Jet printed PEDOT:PSS strain gauges on FDM Printed substrates</td>
<td>Aerosol Jet printed PEDOT:PSS strain gauges on FDM Printed substrates</td>
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<td>Frederik Vogeler joren De Cuyper Eleonora Ferraris KU Leuven</td>
<td>Frederik Vogeler joren De Cuyper Eleonora Ferraris KU Leuven</td>
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<tr>
<td>19:30–23:00</td>
<td>Gala Dinner</td>
<td>Palazzo delle Stelline</td>
<td>Gala Dinner</td>
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<tr>
<td>Wednesday April 1st 2015 Politecnico di Milano</td>
<td>Registration</td>
<td>8:30 - 9:00</td>
<td>Registration</td>
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<td></td>
<td>Plenary</td>
<td>9:00 - 9:20</td>
<td>Plenary</td>
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<td>Key Note</td>
<td>9:20 - 10:20</td>
<td>Key Note</td>
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<td></td>
<td>Nanomanufacturing: perspectives and applications</td>
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<td>Nanomanufacturing: perspectives and applications</td>
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<tr>
<td>Track 1 (Sala A)</td>
<td>Track 2 (Sala B)</td>
<td>Track 3 (Sala C)</td>
<td>Track 4 (Sala D)</td>
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<tr>
<td><strong>Micro EDM process performance II</strong></td>
<td><strong>Micro Machining Dynamics</strong></td>
<td><strong>Micro Injection Moulding I</strong></td>
<td><strong>Surface Treatment and Texturing I</strong></td>
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<tr>
<td><strong>Chair</strong></td>
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<td><strong>Chair</strong></td>
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<tr>
<td>Kamalakar Rajurkar, University of Nebraska-Lincoln, USA</td>
<td>Anna Araujo, Federal University of Rio de Janeiro, Brazil</td>
<td>Hiroshi Ito, Yamagata University, Japan</td>
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<tr>
<td><strong>010 Batch mode die-sinking micro-electro-discharge machining of stainless steel using DRIE bulk tungsten electrode</strong></td>
<td>Micro Injection Moulding of Ti-6Al-4V</td>
<td>Prototyping polymer microfluidics using a flexible injection mould: case studies of using various microstructured tools</td>
<td>Distributed Plasma Nitriding Systems for Surface Treatment of Miniature Functional Products</td>
</tr>
<tr>
<td>Xian Chen, Lu Song and Jing Chen Peking University</td>
<td>Chaneel I. Park and Simon S. Park University of Calgary</td>
<td>Nan Zhang, Richard Byrne and Michael Gilchrist University College Dublin</td>
<td>Tatsuhiko Aizawa Shibaura Institute of Technology</td>
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<tr>
<td><strong>011 A Study to Improve Shape Accuracy of the Hole Drilled by Micro EDM</strong></td>
<td>Effect of Lubrication on Dynamic Instability in High-Speed Micromilling of Ti-6AI-4V</td>
<td>Effect of vacuum venting process on replication of nano- micro-features in microinjection moulding: Quantitative and qualitative analysis</td>
<td>Plasma Nitriding Assisted Micro-Texturing into Martensitic Stainless Steel Molds for Injection Molding</td>
</tr>
<tr>
<td>Yunn-Shiuan Liao and Chang-Sheng Lin National Taiwan University</td>
<td>Rinku Mittal, Kundan Singh and Ramesh Kumar Singh Indian Institute of Technology, Mumbai</td>
<td>Seong Ying Choi, Nan Zhang, Garth Dunne, J.P. Toner and Michael Gilchrist University College Dublin</td>
<td>Tatsuhiko Aizawa Shibaura Institute of Technology</td>
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<td>Jung-Chou Hung and Jia-jin Li Feng Chia University</td>
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<td>Testuya Yamaguchi Sanko-Light Industry, Co. Ltd.</td>
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<td>Zhi-Wen Fan and Yao-Guang Yang Metal Industries Research &amp; Development Centre</td>
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<tr>
<td><strong>Fabrication of an Insulated Micro Spherical Tool by Using Electrophoretic Deposition and Electrical Discharge Machining</strong></td>
<td>Modeling three-dimensional dynamics of rotating micro-endmills including attachment errors</td>
<td>Investigation of air entrapment and weld line defects in micro injection moulded thermoplastic elastomer micro rings</td>
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<tr>
<td></td>
<td>Bekir Bediz and O. Burak Ozdoganlar Carnegie Mellon University</td>
<td></td>
<td>Frederik Boris Hasnaes, Guido Tosello, Matteo Calano, René Eidsborg and Hans Nørgaard Hansen The Technical University of Denmark</td>
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<tr>
<td><strong>012 Study on the forming of the cone-shaped electrode in Micro-EDM milling with fix-length compensation method</strong></td>
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<tr>
<td>Jingyu Pei, Zhaowei Zhou, Xiaoshun Zhuang, Lenan Zhang and Zhiliang Wang Shanghai Jiao Tong University</td>
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<tr>
<td><strong>013 Micro EDM milling with low energy discharges and thin microtool</strong></td>
<td>Parametric and non-parametric identification of micromilling dynamics</td>
<td>Mould Design and Material selection for Film Insert Moulding of Direct Methanol Fuel Cell Packaging</td>
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<tr>
<td>Rabah Dahmani, Yasmina Layouni, Vincent Semet and Michel Cabrera Institut des Nanotechnologies de Lyon</td>
<td>Marco Leonesio CNR - ITIA Andreas Archenti KTH - Royal Institute of Technology, Paolo Parenti Politecnico di Milano</td>
<td>Timo Wöhner, Hans Nørgaard Hansen and Aminul Islam Technical University of Denmark</td>
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<td>Silja Senkbeil and Torsten Lund-Olesen Danish Technical Institute</td>
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<tr>
<td><strong>014 Pulse monitoring and discrimination in micro-EDM milling of Si3N4-TiN micro-channels</strong></td>
<td>Modeling Of Micro Drill Dynamics Based On 2-D Finite Element Method</td>
<td>Injection moulding simulation of a microreactor baseplate</td>
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<tr>
<td>Valeria Marrocco, Francesco Modica, Vincenzo Bellantone and Irene Fassi ITIA CNR</td>
<td>Xiaoliang Jin and Narihara Koya Oklahoma State University</td>
<td>Joško Valentičić and Izidor Sabotin University of Ljubljana</td>
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<td>Andrej GlojeKtecos</td>
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<tr>
<td><strong>015 The Effect of Dynamometer Dynamics on the Measurement Accuracy of Micromachining Forces</strong></td>
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<td>Emrullah Korkmaz, Y. Efe Bayiz and O. Burak Ozdoganlar Carnegie Mellon University</td>
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<td><strong>016 Design and fabrication of a polymeric micro-filter</strong></td>
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<td>Rossella Surace, Vincenzo Bellantone, Gianluca Totta, Vito Basile and Francesco Modica Institute of Industrial Technology and Automation - National Research Council</td>
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<td><strong>017 Application of Functional Nano-Patterning to Polymer Medical Micro Implants</strong></td>
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<td>Giuliano Bisasco, Francesco Biondani, Michael Mischkot and Hans N. Hansen Technical University of Denmark</td>
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<td>Peter Torben Tang IPU</td>
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<tr>
<td>12:50 - 14:30</td>
<td>Lunch (poster sessions)</td>
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<td><strong>Track 6 (Sala A)</strong></td>
<td><strong>Track 8 (Sala B)</strong></td>
<td><strong>Track 12 (Sala C)</strong></td>
<td><strong>Track 10 (Sala D)</strong></td>
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<tr>
<td><strong>Nano Manufacturing I</strong></td>
<td><strong>Abrasive Waterjet and Abrasive Flow Machining</strong></td>
<td><strong>Hyproline</strong></td>
<td><strong>Metrology, Monitoring and Assembly</strong></td>
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<tr>
<td>Chair: Martin Byung-Guk Jun, University of Victoria</td>
<td>Chair: Joško Valentinič, University of Ljubljana, Slovenia</td>
<td>Chair: Ola Lyckfeldt, SWERA, Sweden</td>
<td>Chair: Shih Ming Wang, Chung Yuan Christian University, Taiwan</td>
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<tr>
<td>093</td>
<td>094</td>
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<td>125</td>
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<tr>
<td><strong>Joule Heating Based Sublimation Thinning of Suspended Nanofibers</strong></td>
<td><strong>Manufacturing and Characterization of Coaxial Microfibers with Different Molecular Weights Using Melt Electrospinning Technique</strong></td>
<td><strong>The effect of distribution of UV light on elastic modulus of UV cured film in Roll-to-Roll UV nanoimprint process</strong></td>
<td><strong>Design for micromanufacturing: A scaling study on tolerance analysis</strong></td>
</tr>
<tr>
<td>Giulia Canton, Marc Madou and Lawrence Kulminsky Mechanical and Aerospace Engineering, UCI, Irvine Christian Mendoza-Buenrostro Electrical and Computational Engineering, ITESM</td>
<td>Junghyuk Ko, Jason Keonhag Lee and Martin Byung-Guk Jun University of Victoria Patrick C. Lee University of Vermont</td>
<td>Hiroshi Ito, Shunsuke Kondo and Takehiro Taguchi Yamagata University Kentaro Taki Kanazawa University</td>
<td>Nishanth Srinivasan and J. Rhett Mayor Georgia Institute of Technology</td>
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<tr>
<td>109</td>
<td>110</td>
<td>111</td>
<td>126</td>
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<tr>
<td><strong>Abrasive Waterjet micro machining of Non-conventional Materials for Industrial Applications</strong></td>
<td><strong>Micro-machining of channels using a high pressure abrasive slurry jet machine (HASJM)</strong></td>
<td><strong>Modelling and Optimization of Abrasive Flow Machining of Al Alloy</strong></td>
<td><strong>Evaluation of the capabilities and damage risk of cleaning methods for micro-CMM stylus tips</strong></td>
</tr>
<tr>
<td>Massimiliano Annoni, Francesco Arleo, Francesco Viganò, Luca Villa, and Stefano Volpi Politecnico di Milano</td>
<td>Naser Haghbin, Farbod Ahmadzadeh and Marcello Papini Jan K. Spelt University of Toronto</td>
<td>Kalipada Majty and Kanhu Charan Tripathi, National Institute of Technology, Rourkela</td>
<td>Xiaobing Feng and Simon Lawes The University of Nottingham Peter Kinnell Loughborough University</td>
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<td><strong>Improving the Surface Integrity of 3D Printed Stainless Steel Parts by Laser Polishing</strong></td>
<td><strong>On Comparative Evaluation of Accuracy, Repeatability and Reproducibility of Laser Micromachining Systems</strong></td>
<td><strong>Metal powder characterization for 3D printing</strong></td>
<td><strong>Uncertainty in 3D Micro Measurement with Focus Variation Microscopy</strong></td>
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<td>Debajyoti Bhaduri, Pavel Penchev, Stefan Dimov and Sein Leung Soo The University of Birmingham</td>
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<td>Ola Lyckfeldt Swerea IVF AB</td>
<td>Giovanni Moroni, Wahyudin P Syam and Stefano Stefano Petrò Politecnico di Milano</td>
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<td><strong>Analysis of the bubble defects in R2R UV micro-imprinting process</strong></td>
<td><strong>PCB-based multi-spinnerets for high-efficiency electrospinning piezoelectric nonwoven fiber fabrics</strong></td>
<td><strong>A Combined Numerical-analytical Methodology for Surface Profile Prediction of Abrasive Slurry Jet Micro-machined Holes</strong></td>
<td><strong>2D position sensor based on speckle correlation</strong></td>
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<td>Modeling and Manufacturing of Optical Devices</td>
<td>Relationship of surfaces of micro mold and embossed plastic part</td>
<td>A comparative study of metal and ceramic injection moulding for precision applications</td>
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<td>099</td>
<td>Efficient fabrication methods of various 3D nanodot array structures</td>
<td>The Effect of Intermittent Grinding on Burrs and Force generated by Functional Textured Wheel</td>
<td>A High Throughput Micro-Embossing Manufacturing Cell for Microfluidic Device Manufacture</td>
<td>Increasing accuracy and machining speed in precise electrochemical machining of a micro injection moulding cavity</td>
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<td>New fabrication method of metamaterial resonator by self-organization method</td>
<td>Adaptive Control Optimization in Micro-Machining of Hardened Steels</td>
<td>Viscoelastic characterisation, numerical simulation and experimental investigation of micro hot embossing process with amorphous thermoplastic polymers</td>
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<td>Overview the fundamental issues in PCB micro-drilling industry</td>
<td>Hybrid Processes for Manufacturing of Multi-material Micro Parts</td>
<td>A method for dimensional and surface optical measurements uncertainty assessment on micro structured surfaces manufactured by Jet-ECM</td>
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**Chair:**
- Ben Whiteside, University of Bradford, UK
- Guido Tosello, University of Copenhagen, Denmark
- Jeong Woo Park, Chosun University, Korea
- Guido Tosello, University of Copenhagen, Denmark
- Burak Ozdoganlar, Carnegie Mellon University, USA
- Ben Whiteside, University of Bradford, UK
- Guido Tosello, University of Copenhagen, Denmark
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<td>Micro EDM modelling and simulation</td>
<td>Bai Shao and Kamlakar Rajurkar (University of Nebraska-Lincoln)</td>
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<td>Micro Machining Process Characterisation</td>
<td>Adriane Mougo, Fábio Campos and Anna Carla Araujo (Federal University of Rio de Janeiro)</td>
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<td>Lab Dinner @ POLIMI</td>
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<td>Approach to technological modeling of micro EDM milling</td>
<td>Izidor Sabotin and Joško Valentinčič</td>
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<td>A. Banfi, L. Colombo, F. Cacciatore, L. Rebaïoli, M. Annoni</td>
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<td>Analysis of the influence of part thickness on the replication of microstructured surfaces by injection molding</td>
<td>Davide Masato, Marco Sorgato and Giovanni Lucchetta</td>
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<td>Using voxels in the simulation of manufacturing processes</td>
<td>Anthony Surleraux and Samuel Bigot</td>
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<td>Process parameters optimization for micro-milling of EBM Ti6Al4V Titanium Alloy</td>
<td>Zdenka Rysava, Gianluca Tristo and Stefania Bruschi</td>
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<td>Research on Pulse Power Supply and Electrode for Electrochemical Machining of Micro Holes</td>
<td>Yong Li, Guodong Liu and Hao Tong</td>
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<td>Microtool wear measurement and assessment</td>
<td>Giovanni Moroni, Stefano Petró, Wahyudin P. Syam</td>
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<td>036</td>
<td>Injection molding of nano-structured polymeric acid surfaces for bone regeneration studies</td>
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<td>A novel setup for cavity pressure and temperature measurements in micro-injection moulding</td>
<td>Gianluca Trotta, Vito Basile and Irene Fassi Institute of Industrial Technology and Automation of National Research Council</td>
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<td>Influence of the micro-patterned Inserts on the characteristics of the hard turning process</td>
<td>Dong Min Kim, Ineon Lee and Hyung Wook Park</td>
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<td>An Experimental Report of the Force Required to Demould Parts Replicated by Injection Moulding</td>
<td>Kevin Delaney</td>
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<td>Effects of the cutting edge serrations on the brittle fracture in the glass milling</td>
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<td>Biprism Interference Micro-Patterning For Periodic Micro-Structure Generation</td>
<td>Ishan Saxena, Jintao Liu, Kornel Ehmann and Jian Cao</td>
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<td>Development of a Titanium (Ti) Ultrasonic Waveguide System for Nano-surface Treatment</td>
<td>Hyunse Kim, Euisu Lim and Jong-Kweon Park</td>
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<td>Uksu Kim and Jeongwoo Park</td>
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<td>Christopher Harris, Karl Dean, Pavel Penchev and Stefan Dimov</td>
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<td>075</td>
<td>Replication Fidelity Assessment in Nano Moulding</td>
<td>Matteo Calao, Hans Nørgaard Hansen and Guido Torsello</td>
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