

LiM2015 Advance Program, Monday, 22.6.2015

08:00 -
09:00

Registration

ICM Ground Floor/1st Floor, Room 1

WoP Opening and Plenary Session

09:00 -
11:00

WoP-Opening Ceremony and Plenary Session

WoP

Coffee break

ICM 1st Floor, Room 13b

LiM Plenary Session and WLT ceremony, Chair A. Ostendorf & T. Graf

11:15 -
11:30

Welcome to LiM

*Andreas Ostendorf
Thomas Graf*

11:30 -
12:00

The Extreme Light Infrastructure (ELI)

Wolfgang Sandner

12:00 -
12:30

Laser-sintering: laser-based industrial 3D printing

Tobias Abeln

12:30 -
12:45

WLT Award Ceremony

Andreas Ostendorf

12:45 -
13:15

Price Winning Topic

Price Winner

Lunch

LiM2015 Advance Program, Monday, 22.6.2015		LiM2015 Advance Program, Monday, 22.6.2015		LiM2015 Advance Program, Monday, 22.6.2015		
Room "Edison", 1st Floor, Exhibition Hall A2 (A21/A22)		Room "Newton 2", 1st Floor, Exhibition Hall A3 (A32)		Room "Newton 1", 1st Floor, Exhibition Hall A3 (A31)		
Macro Processing: Joining (Welding, Brazing) (Mo_A2_1), Chair U. Reisgen		Micro Processing: Surface Functionalization (Mo_A32_1), Chair A. Conzelmann		Micro Processing: Micro Joining (Welding and Brazing) (Mo_A31_1), Chair M. Kogel-Hollacher		
14:30 - 14:45	Flow and bead formation characteristics in high power laser welding at different welding positions (Invited)	Suck-Joo Na Sang-Woo Han, Sohail Muhammad, Linjie Zhang, Andrey Gumenyuk, Michael Rethmeier, Miikka Karhu, Veli Kujanpaa	Laser based surface structuring for lightweight design (Invited)	Max Kahmann Ulf Quentin, Marc Kirchhoff, Rüdiger Brockmann, Klaus Löffler	Sputter-free and Reproducible Laser Welding of Electric or Electronic Copper Contacts with a Green Laser	Elke Kaiser Rudolf Huber, Christian Stolzenburg, Alexander Killi
14:45 - 15:00					Energy efficiency in laser rod end melting	Heiko Brüning Frank Vollertsen
15:00 - 15:15	Energy-Efficient Industrial Production with High-Power Disk- and Direct Diode-Lasers	Matthias Koitzsch Volker Rominger	Investigation and application of laser induced surface functionalization with pulse delays between 40ns and 50µs on silicon and steel foils	Viktor Schütz Jürgen Koch, Oliver Suttman, Ludger Overmeyer	Laserwelding of transparent polymer films	Maximilian Brosda Viktor Mamuschkin
15:15 - 15:30	Yb: fiber laser joining of Ti-6Al-4V and AA6013 dissimilar metals	Aline Capella Oliveira Rudimar Riva, Natalia Maria Antonangelo Athanzio	One-Step Generation of Ultrahydrophobic Aluminum Surface Patterns by Nanosecond Lasers	José L. Ocaña Radhakrishnan Jagdheesh, Juan J. García-Ballesteros	High precise welding of transparent polymers	Frederick Vinzent Michael Schwalm, Tobias Jaus, Manuel Sieben
15:30 - 15:45	Influence of different zinc coatings on laser brazing of aluminum to steel	Tim Radel Marius Gatzel, Peer Woizeschke, Claus Thomy	Structuring of injection moulding tools with ultrashort laser pulses for surface functionalization after casting	Felix Dreisow Sebastian Wächter, Sabine Sändig	Direct bonding of transparent PMMA using an ultrafast fiber CPA laser system	Annalisa Volpe Caterina Gaudio, Andrea De Rosa, Rebeca Martínez Vázquez, Antonio Ancona, Pietro Mario Lugarà, Roberto Osellame
15:45 - 16:00	Laser Beam Welding of press hardened ultra-high strength 22MnB5 steel	Benjamin Gerhards Uwe Reisgen, Simon Olschok, Oliver Engels	Laser beam propagation and energy deposition in particulate PEEK layers	Hendrik Sändker Jochen Stollenwerk, Johannes Hofmann, Peter Loosen	Influence of Welding Parameters and Stack Configuration on Pore Formation of Laser Welded Aluminum Foil Stacks	Thomas Engelhardt
Coffee break		Coffee break		Coffee break		
Macro Processing: Joining (Welding, Brazing) (Mo_A2_2), Chair J. Powell		Micro Processing: Surface Functionalization (Mo_A32_2), Chair A. Conzelmann		Micro Processing: Micro Joining (Welding and Brazing) (Mo_A31_2), Chair M. Kogel-Hollacher		
16:30 - 16:45	3D-capable Coaxial Laser Brazing Head	Alexander Gatej Markus Kogel-Hollacher, David Blázquez-Sánchez, Andreas Bobrowski, Andreas Niete, Nicholas Blundell, Kevin Withers	Use of high-energy laser radiation for surface preparation of magnesium for adhesive applications	Norbert Schneider Christian Wrobel, Jens Dr. Holtmannspoetter, Guenther Prof. Dr. Loewisch	Camera based closed-loop control of laser micro-welding processes by observation of the full penetration hole	Andreas Blug Volker Jetter, Daniel Carl, Simon Gutscher, Jan Nekarda
16:45 - 17:00	Robust false friend detection via thermographic imaging	Karin Heller Steffen Kessler, Friedhelm Dorsch, Peter Berger, Thomas Graf	Nanostructures fabricated by laser interference lithography and their potential applications	Evaldas Stankevičius Mantas Garliauskas, Gediminas Račiukaitis	Laser welding simulation of microfluidic devices	Arnaud Francois Anne Henrotin, Jose A. Ramos
17:00 - 17:15	Correlation of keyhole dynamics and pore formation	Joerg Volpp Frank Vollertsen	Investigation of the influence of laser surface modifications on the adhesive wear behavior in dry cold extrusion of aluminum	Ingo Roß André Temmler, Edgar Willenborg, Marco Teller	Thermal analysis of Laser Transmission Welding of thermoplastics: Indicators of weld seam quality	Adhish Majumdar Benjamin Lecroc, Laurent D'Alvise
17:15 - 17:30	Properties of steel-aluminum joints generated by combining continuous and pulsed laser radiation	Sascha Frank	Fabrication of graphene-chitosan electrodes for sensing applications by laser induced modification of the composite film	Romualdas Trusovas Raimonda Celiešiūtė, Rasa Pauliukaite, Gediminas Račiukaitis	Effect of processing parameters in welding of biocompatible polymer film to metal sheet using an infrared laser source	Guijun Bi Hui-Chi Chen, Juan Carlos Hernandez Castaneda, Hong Xie
17:30 - 17:45	Laser-GMA-Hybrid Welding of high strength multi-material joints	Felix Möller Helge Kügler, Sven-F. Goecke, Frank Vollertsen	Influence of laser marking on stainless steel surface and corrosion resistance	Martin Kucera	Adjustment and Impact of the Thermoplastic Microstructure of the Melting Layer in Laser-based Joining of Polymers to Metals	Klaus Schrickler Martin Stambke, Jean Pierre Bergmann
17:45 - 18:00	Laser cleaning of Aluminium alloy for automotive component welding (Invited)	Lin Li	High velocity laser printing of conductive tracks	Philippe Delaporte Daniel Puerto, Emeric Biver, Catalin Constantinescu, Dimitris Karnakis, Anne-Patricia Alloncle	Laser hybrid joining of plastic and metal components for lightweight assemblies	Jens Rauschenberger Asier Cenigaonandia, Jan Keseberg, Ulrich Gubler, Fernando Liébana

LiM2015 Advance Program, Tuesday, 23.6.2015		LiM2015 Advance Program, Tuesday, 23.6.2015		LiM2015 Advance Program, Tuesday, 23.6.2015	
Room "Edison", 1st Floor, Exhibition Hall A2 (A21/A22)		Room "Newton 2", 1st Floor, Exhibition Hall A3 (A32)		Room "Newton 1", 1st Floor, Exhibition Hall A3 (A31)	
Macro Processing: Joining (Welding, Brazing) (Tu_A2_1), Chair W. Behr		Micro Processing: Surface Functionalization (Tu_A32_1), Chair S. Marzenell		Macro Processing: CFRP (Tu_A31_1), Chair A. Gillner	
08:30 - 08:45	Laser welding inspection on aeronautic material with non-contact real-time optical beam deflection sensor <i>João Marcos Salvi Sakamoto Renan Borges Marques, Rudimar Riva, Cláudio Kitano, Gefeson Mendes Pacheco</i>	Adjustment of surface energy on steel surfaces due to CLP generation by picosecond laser processing <i>Tom Häfner Johannes Heberle, Daniel Holder, Michael Schmidt</i>			
08:45 - 09:00	Three-dimensional, multi-factor monitoring and control of laser keyhole welding by inline coherent imaging <i>Paul J. L. Webster Christopher M. Galbraith, Cole Van Vlack, Daniel R. Buckley, James M. Fraser</i>	Tribological surface functionalization via femtosecond laser-induced periodic surface structures on metals <i>Sandra Höhm Jörn Bonse, Robert Koter, Manfred Hartelt, Dirk Spaltmann, Simone Pentzien, Stephan Marschner, Alexandre Mermillod-Blondin, Arkadi Rosenfeld, Jöra Krüaer</i>		Laser Cutting and Joining in a Novel Process Chain for Fibre Reinforced Plastics <i>Frank Schneider Christoph Engelmann, Norbert Wolf, Wolfgang Moll, Dirk Petring</i>	
09:00 - 09:15	3D weld seam characterization based on optical coherence tomography for laser-based thermal joining of thermoplastics to metals <i>Philippe Ackermann Guilherme Mallmann, Robert Schmitt, Jean Pierre Bergmann, Klaus Schrickler, Martin Stambke</i>	Studies on Laser Surface Texturing of Titanium Alloy (Ti-6Al-4V) <i>Jyotsna Dutta Majumdar Renu Kumary, Heino Besser, Tim Scharnweber, Wilhelm Pflöging</i>		Analytical Model for Laser Cutting of Carbon Fiber Fabrics: Maximum Cutting Speed and Heat Affected Zone <i>Alexander N. Fuchs Thomas Woldrich, K. Manfred Heimhilger, Michael F. Zaeh</i>	
09:15 - 09:30	Influence of a second heat source on the distortion behaviour during laser beam welding <i>Falk Nagel Jean Pierre Bergmann</i>	Non-uniform micro-texturing of tribological steel surfaces by femtosecond laser ablation <i>Antonio Ancona Giuseppe Carbone, Michele Scaraggi, Annalisa Volpe, Michele De Filippis, Pietro Mario Lugarà</i>		Ultrafast Lasers Jump to Macro Applications <i>Martin Griebel Jan Langebach</i>	
09:30 - 09:45	Controlled metal transfer from wire by a laser-induced boiling front <i>Alexander Kaplan Mohammad Javad Torkamany, F. Malek Ghaini, Mikko Vänskka, Antti Salminen, Karl Fahlström, Joakim Hedegård</i>	Generation of low-spatial frequency Laser Induced Periodic Surface Structures Driven by Surface Finish <i>Stefan Rung Florian Preusch, Ralf Hellmann</i>		Effect of several gas ambiances on HAZ suppression in CFRP cutting with nanosecond laser <i>Yuji Sato Masahiro Tsukamoto, Fumihiro Matsuoka, Kensuke Yamashita, Kenjiro Takahashi, Shinichiro Masuno</i>	
09:45 - 10:00	Capillary geometries during welding of metals observed with X-ray technique and calculated using a ray-tracing tool and a finite volume program treating heat diffusion and fluid flow <i>Peter Wolfgang Berger Andreas Heider, Meiko Boley</i>	Selective Femtosecond-Laser Structuring of Dielectric Thin Films with Different Band Gaps: A Time-Resolved Study of Ablation Mechanisms <i>Stephan Rapp Gerrit Heinrich, Heinz P. Huber, Michael Schmidt</i>		Analysis of potentially hazardous substances emitted during laser processing of carbon fiber reinforced plastics <i>Jürgen Walter Christian Hennigs, Michael Huse, Michael Hustedt, Stefan Kaierle, Ludger Overmeyer</i>	
Coffee break		Coffee break		Coffee break	
Macro Processing: Joining (Welding, Brazing) (Tu_A2_2), Chair S. Olschok		Micro Processing: Processing of Transparent Materials (Tu_A32_2), Chair O. Suttmann		Macro Processing: CFRP (Tu_A31_2), Chair A. Gillner	
10:30 - 10:45	Influence of residual stresses induced by forming on the hot cracking sensitivity of laser welding processes of AlMgSi aluminum alloy <i>Peter Stritt Christian Hagenlocher, Rudolf Weber, Thomas Graf</i>	Pulsed laser induced photo ablation of diamond (Invited) <i>Vitaly Ivanovich Konov Vitali Viktorovich Kononenko, Maxim Sergeevich Komlenok</i>		High Power UV Laser Processing of CFRP with Short ns Pulses and Pulse Splitting <i>Masayuki Fujita Hiroshi Ohkawa, Toshihiro Somekawa, Takaomi Matsutani, Yoshinobu Maeda, Jim Bovatsek, Rajesh Patel, Noriaki Miyanaga</i>	
10:45 - 11:00	Fundamental analyses of hot cracks in remote laser welded aluminium fillet welds <i>Hans Langrieger Frank Krafft, Martin Mensinger, Florian Oefele</i>			Theoretical and experimental determination of the polarization dependent absorptance of laser radiation in carbon fibers and CFRP <i>Christian Wilhelm Freitag Lukas Alter, Rudolf Weber, Thomas Graf</i>	
11:00 - 11:15	Analysing Hot Crack Formation in Laser Welding of Tempered Steel <i>Marcel Schaefer Nicolai Speker, Rudolf Weber, Thomas Graf, Thomas Harrer</i>	Nanosecond laser processing of diamonds <i>Jan-Patrick Hermani</i>		Metal meets Composite - Hybrid Joining for Automotive Applications <i>Christoph Engelmann Daniel Meier, Alexander Olowinsky, Mathieu Kielwasser</i>	
11:15 - 11:30	Online crack detection during laser welding using passive thermography <i>Daniel Weller Peter Stritt, Florian Fetzer, Rudolf Weber, Thomas Graf, Cyrille Bezençon, Jörg Simon, Corrado Bassi</i>	Laser Induced Micro-Dot Generation Inside Transparent Materials: A) Formation Dynamics, Refractive Character and Internal Stress <i>Alexandre Mermillod-Blondin Arkadi Rosenfeld, David Ashkenasi</i>		Temperature monitoring independent of laser-beam-position during laser transmission welding of fibre reinforced thermoplastics <i>Oliver Suttmann Hagen Dittmar, Verena Wippo, Peter Jaeschke, Helmut Kriz, Chris Beaver, Ludger Overmeyer</i>	
11:30 - 11:45	Influence of filler wire and focus diameter on crack formation in laser beam welding of high strength aluminum alloys <i>Matthias Holzer Fabian Hoppe, Vincent Mann, Konstantin Hofmann, Florian Hugger, Stephan Roth, Michael Schmidt</i>	Laser Induced Micro-Dot Generation Inside Transparent Materials: B) Process Implementation, Optimization and Utilization <i>David Ashkenasi Manuela Schwagmeier, Alexandre Mermillod-Blondin, Arkadi Rosenfeld</i>		Cutting of CFRP with short-pulsed lasers at 1 µm and 10 µm wavelength and average powers of more than 1 kW <i>Margit Wiedenmann Christian Freitag, Matthias Haug, Volkher Onuseit, Rudolf Weber, Thomas Graf</i>	
11:45 - 12:00		Tuning the Energy Deposition of Ultrashort Pulses inside Transparent Materials for Laser Cutting Applications <i>Malte Kumkar Klaus Bergner, Daniel Flamm, Daniel Grossmann, Myriam Kaiser, Jonas Kleiner, Stefan Nolte</i>			
Lunch		Lunch		Lunch	

Joint session with ECLEO, Room 13a

LiM2015 Advance Program, Tuesday, 23.6.2015		LiM2015 Advance Program, Tuesday, 23.6.2015		LiM2015 Advance Program, Tuesday, 23.6.2015	
Room "Edison", 1st Floor, Exhibition Hall A2 (A21/A22)		Room "Newton 2", 1st Floor, Exhibition Hall A3 (A32)		Room "Newton 1", 1st Floor, Exhibition Hall A3 (A31)	
Macro Processing: Joining (Welding, Brazing) (Tu_A2_3), Chair M. Rethmeier		Micro Processing: Processing of Transparent Materials (Tu_A32_3), Chair O. Suttmann		Macro Processing: CFRP (Tu_A31_3), Chair M. Zäh	
14:00 - 14:15	Fundamental Research of 100 kW Fiber Laser Welding Technology (Invited) <i>Seiji Katayama, Masami Mizutani, Yousuke Kawahito, Shingo Ito, Daichi Sumimori</i>	Laser-Induced Subsurface Modification of Silicon Wafers (Invited) <i>Paul Christiaan Verburg, Lachlan Smillie, Gert-Willem Römer, Bianca Haberl, Jodie Bradby, Jim Williams, Bert Huis in 't Veld</i>		Experimental and analytical description of the multi-wavelength remote-laser ablation process at fiber reinforced polymers <i>Michael Rose, Andreas Fürst, Dominik Hipp, Annett Klotzbach, Jan Hauptmann, Andreas Wetzig, Eckhard Beyer</i>	
14:15 - 14:30				Remote Laser Cutting of CFRP: Increased Fatigue Strength as a Consequence of the Heat Affected Zone <i>Johannes Wolfgang Stock, Michael F. Zaeh</i>	
14:30 - 14:45	Influence of Ambient Pressure on Spatter Formation during Laser Welding of Copper <i>Andreas Heider, Thomas Engelhardt, Rudolf Weber, Thomas Graf</i>	Investigation on Bragg grating formation in a perfluorinated polymer optical fiber <i>Simon Kibben, Michael Koerd, Frank Vollertsen</i>		Correlation between temperature field and heat affected zone during laser cutting of CFRP <i>Marten Canisius, Max Oberlander, Dirk Herzog, Matthias Schmidt-Lehr, Petter Ploog, Claus Emmelmann</i>	
14:45 - 15:00	Laser Beam Welding in Vacuum – Overview of Thick-Plate Steel Application and Beyond <i>Stefan Jakobs, Uwe Reisgen, Simon Olschok, Christoph Turner</i>	New approach for laser processing of transparent materials <i>Michael Grimm, Michael Werner, Robin Zimny</i>		Laser-remote-cutting of large-scale semi-finished carbon-fibre products using a solid state laser <i>Max Oberlander, Matthias Schmidt-Lehr, Dirk Herzog, Marten Canisius, Claus Emmelmann</i>	
15:00 - 15:15	Multispot laser welding to improve process stability <i>Klaus Schütt Hansen, Flemming O. Olsen, Morten Kristiansen, Ole Madsen</i>	Straightforward Laser Machining of Thin Glass <i>David Ashkenasi, Tristan Kaszemeikat, Norbert Mueller</i>		Productive Laser Processing of CFRP <i>Volkher Onuseit, Torben Prieß, Christian Freitag, Margit Wiedenmann, Birgit Faisst, Roswitha Giedl-Wagner, Thomas Rettich, Rudolf Weber, Peter Middendorf, Thomas Graf</i>	
15:15 - 15:30	Online Detection of Pore Formation during Laser Deep-Penetration Welding <i>Meiko Boley, Rudolf Weber, Thomas Graf</i>	Influence of Pulse Duration on the Glass Cutting Process <i>Lara Bauer, Uwe Keller, Simone Russ, Malte Kumkar, Birgit Faisst, Thomas Graf</i>			
Coffee break		Coffee break		Coffee break	
Macro Processing: Joining (Welding, Brazing) (Tu_A2_4), Chair R. Holtz		Micro Processing: Processing of Transparent Materials (Tu_A32_4), Chair O. Suttmann		(Tu_A31_4),	
16:00 - 16:15	Influence of laser power modulation on the time-resolved temperature distribution in the weld pool during laser welding of copper to aluminum <i>Michael Jarwitz, Florian Fetzer, Peter Stritt, Rudolf Weber, Thomas Graf</i>	Laser controlled ion exchange process and its applications <i>Xinghua Li, Garner Sean</i>			
16:15 - 16:30	Simulation of Laser Welding of Dissimilar Metals <i>Rodrigo Gómez Vázquez, Andreas Otto, Gerhard Liedl, Robert Feichtenschlager</i>	Fabrication of micropump device with mixing functionality in fused silica with ultrashort laser pulses <i>Valdemar Stankevič, Gediminas Račiukaitis</i>			
16:30 - 16:45	Laser Power Modulation to Minimize the Electrical Resistance of Aluminum-Copper Welds <i>Florian Fetzer, Michael Jarwitz, Rudolf Weber, Thomas Graf</i>	Laser line etching technique using the nozzle-induced bubble jet impact for glass <i>Chwan-Huei Tsai, Di-Wen Chiue</i>			
16:45 - 17:00	Influence of filler wires on weld seam properties of laser beam welded dissimilar copper connections <i>Vincent Mann, Matthias Holzer, Fabian Gärtner, Florian Hugger, Stephan Roth, Michael Schmidt</i>	Rear Side Processing of Soda-Lime Glass Using DPSS Nanosecond Laser <i>Juozas Dudutis, Paulius Gečys, Gediminas Račiukaitis</i>			
17:00 - 17:15	Comparison of Mechanical and Microstructural Characteristics in Maraging 300 Steel Welded by three different processes: LASER, PLASMA and TIG. <i>Antonio Jorge Abdalla, Milton Sérgio Fernandes Lima, Leonardo Fanton, Cecilia Vieira Gomes, Sandro Lombardo, Deivid Ferreira Silva, Paulo Roberto Sakai</i>	Glass Processing with High Power Q-Switch CO2 Laser Radiation <i>Sebastian Heidrich, Christian Weingarten, Edgar Willenborg, Reinhart Poprawe</i>			
17:15 - 17:30	Keyhole shape and element loss in laser beam welding of brass alloys <i>Florian Hugger, Vincent Mann, Matthias Holzer, Stephan Roth, Michael Schmidt</i>	Precise structuring by 2-photon absorption in positive photoresist materials <i>Gordon Zyla, Andreas Aumann, Sarah Isabelle Ksouri, Evgeny Gurevich, Andreas Ostendorf</i>			
17:30 - 17:45	Experimental Studies of Fiber Laser Welding of a Range of Dissimilar Material Combinations <i>Mohammed Naeem</i>	Thermal simulation of confined SiO2/Si laser ablation <i>Regina Moser, Niko Burkard, Jürgen Sotrop, Heinz P. Huber, Gerd Marowsky</i>			
19:00 - 23:00	LiM Get together Augustiner Bier Keller	LiM Get together Augustiner Bier Keller	LiM Get together Augustiner Bier Keller	LiM Get together Augustiner Bier Keller	LiM Get together Augustiner Bier Keller

Joint session with ECLEO., Room 13a

Joint session with ECLEO., Room 13a

LiM2015 Advance Program, Wednesday, 24.6.2015		LiM2015 Advance Program, Wednesday, 24.6.2015		LiM2015 Advance Program, Wednesday, 24.6.2015	
Room "Edison", 1st Floor, Exhibition Hall A2 (A21/A22)		Room "Newton 2", 1st Floor, Exhibition Hall A3 (A32)		Room "Newton 1", 1st Floor, Exhibition Hall A3 (A31)	
<i>Macro Processing: Joining (Welding, Brazing) (We_A2_1), Chair J.-P. Bergmann</i>		<i>Macro Processing: Surface Treatment and Cladding (We_A32_1), Chair T. Seefeld</i>		<i>Macro Processing: Cutting (We_A31_1), Chair A. Lüdi</i>	
08:30 - 08:45	Influence of Laser Power and Wavelength on the Resonant Interaction between Laser Radiation and TIG Welding Arc <i>Jörg Hermsdorf Benjamin Emde, Michael Huse, Stefan Kaierle, Volker Wesling, Ludger Overmeyer</i>	Additive manufacturing of a deep drawing tool <i>Hannes Freijße Jochen Vorholt, Thomas Seefeld, Frank Vollertsen</i>		Theoretical Analysis of Laser Cutting of Metals at 1 and 10 micrometer wavelength <i>Michael Heinrich Brüggmann</i>	
08:45 - 09:00	Crack-Free autogenous one-side laser welding of a 6013 aluminium alloy-joint for aircraft applications <i>Rudimar Riva Rafael Humberto Mota de Siqueira, Milton Sérgio Fernandes de Lima</i>	Influence of a short time heat treatment on the formability and aging characteristics of aluminum profiles <i>Matthias Graser Marion Merklein, Michael Lechner</i>		Performance and efficiency of an industrial direct diode source with an extremely low BPP in laser cutting of Fe-based and reflective alloys <i>Barbara Previtali Giovanni Riva, Erica Librera, Maurizio Sbeti, Mattia Vanin, Giacomo Biscaglia, Francesco Villa, Bien Chann, Bryan Lockman</i>	
09:00 - 09:15	Laser Beam Welding of WSPALLOY for Aeronautic Engine Application <i>Reza Shoja Razavi</i>	Laser Surface Treatment of electroless Ni-P-SiC coating on Al356 alloy <i>Reza Shoja Razavi Sayed Hamid Hashemi</i>		Effect of the laser beam polarization state on the laser cut surface quality <i>Alexander Golyshev Victor Shulyatyev, Anatoly Orishich</i>	
09:15 - 09:30	Modeling of powder consolidation coupled with heat transfer at selective laser melting of fused silica <i>Andrey V. Gusarov Roman S. Khmyrov, Cyrill E. Protasov</i>	Characterization of the effect of laser scribing on the isolation coating of electrical steel <i>Peter Rauscher Jan Hauptmann, Jörg Kaspar, Andreas Wetzig, Eckhard Beyer</i>		Multiple Wavelength Laser Processing Technology for Flexible Manufacturing <i>Joe Hillman Yefim Sukhman, Chris Risser</i>	
09:30 - 09:45	Properties of large 3D parts made from Stellite 21 through direct powder deposition <i>Hannes Freijße Pavel Khazan, Malte Stroth, Henry Köhler</i>	Reconditioning of lamellar graphite cast iron parts by means of Laser-Cladding and heuristic-based process parameter adaption <i>Dipl.-Ing. Mauritz Möller Prof. Dr.-Ing. Claus Emmelmann</i>		Remote laser cutting of composites with a fibre guided thin-disk nanosecond high power laser <i>Sven Bluemel Veit Angrick, Stefan Bastick, Peter Jaeschke, Oliver Suttmann, Ludger Overmeyer</i>	
09:45 - 10:00	High Strength Al-Cu Alloys Processed Using 400W Selective Laser Melting <i>Daniel Koutny David Palousek, Ondrej Koukal, Tomas Zikmund, Libor Pantelejev, Filip Dokoupil</i>	Surface structuring by laser remelting of Inconel 718 <i>André Temmler Tobias Schmickler, Edgar Willenborg, Konrad Wissenbach</i>		F-Theta at Jenoptik - a holistic approach <i>Tim Baldsiefen</i>	
Coffee break		Coffee break		Coffee break	
<i>Micro Processing: Ablation, Drilling and Micro-Cutting (We_A2_2), Chair A. Ostendorf</i>		<i>Macro Processing: Surface Treatment and Cladding (We_A32_2), Chair T. Seefeld</i>		<i>Macro Processing: Cutting (We_A31_2), Chair A. Wetzig</i>	
10:30 - 10:45	Multi parallel ultrashort pulse laser processing (Invited) <i>Arnold Gillner M. Jüngst, P. Gretzki</i>	Reconditioning of HPT Blade Tips (Invited) <i>Knut Partes</i>		Laser or Plasma Cutting – Is there a Choice?(Invited) <i>Volker Krink Thomas Dr. Rümenapp, Michael Dr. Schnick, Nicole Dönicke</i>	
10:45 - 11:00					
11:00 - 11:15	Investigation of Femtosecond Laser Texturing in Cemented Carbide Cutting Tools <i>Wagner de Rossi Patrícia Alves Barbosa, Marcelo Bertoletti, Ricardo Elgul Samad, Nilson Dias Vieira Júnior, Izabel Fernanda Machado, Álisson Rocha Machado, Rui Vilar</i>	High Speed Quasi-CW Fibre Laser Drilling of Aerospace Alloys <i>Sundar Marimuthu Mohammad Antar, Dimitrios Chantzis</i>		Laser Micro-Cutting of Thick Tungsten Sheets <i>Ramūnas Šniaukas Gediminas Račiukaitis</i>	
11:15 - 11:30	Shorter than short: How does the pulse duration influence the process efficiency and the quality of conductive materials? <i>Simone Russ Uwe Keller, Lara Bauer, Tilo Meyer, Raphael Gebbs, Birgit Faisst, Jörg Roller, Benjamin Führa</i>	Developments on Laser Drilling in Gas Turbine Blades <i>Thomas Beck Jens Dietrich</i>		The influences of pulse overlap on cut quality during fiber laser cutting of electrodes for Lithium-ion batteries <i>Tobias Reincke Stefan Kreling, Klaus Dilger</i>	
11:30 - 11:45	Laser micro structuring using adaptive mirror for extra-cavity beam-shaping of high-power ultra-short laser pulses <i>Marco Smarra Johannes Neyer, Klaus Dickmann, Jean Pierre Bergmann</i>	Development of a wire based laser alloying process for highly stressed surfaces of hot forming steel tools <i>Konstantin Hofmann Matthias Holzer, Stefan Lutz, Steffen Schmitt, Vincent Mann, Florian Hugger, Stephan Roth, Michael Schmidt</i>		Basic imaging and modelling analysis of the processing front in laser remote fusion cutting <i>Ramiz .S. Matti Alexander F.H. Kaplan</i>	
11:45 - 12:00	Cutting diamond tools using the Laser MicroJet® technology on a 5 axis machine <i>Annika Richmann Sébastien Kurzen, Benjamin Carron, Bernold Richerzhagen</i>	Inner walls laser cladding of WC reinforced Ni coatings <i>Josu Leunda Carlos Soriano, Carmen Sanz</i>		Temporally and spatially resolved measurement of the cut front geometry while cutting with a solid-state laser <i>Oliver Bocksrocker Tim Hesse, Peter Berger, Meiko Boley, Thomas Graf</i>	
Lunch		Lunch		Lunch	

LiM2015 Advance Program, Wednesday, 24.6.2015		LiM2015 Advance Program, Wednesday, 24.6.2015		LiM2015 Advance Program, Wednesday, 24.6.2015	
Room "Edison", 1st Floor, Exhibition Hall A2 (A21/A22)		Room "Newton 2", 1st Floor, Exhibition Hall A3 (A32)		Room "Newton 1", 1st Floor, Exhibition Hall A3 (A31)	
Micro Processing: Ablation, Drilling and Micro-Cutting (We_A2_3), Chair C. Esen		Macro Processing: Surface Treatment and Cladding (We_A32_3), Chair K. Partes		Macro Processing: Cutting (We_A31_3), Chair L.D. Scintilla	
14:00 - 14:15	Influence of coaxial cw laser heating on the ablation of silicon with ultra-fast lasers <i>Christian Fornaroli Arnold Gillner</i>	Sensors, modelling, real time process control and monitoring of laser cladding (Invited) <i>Pascal Aubry</i>		Optical cutting tear detection system for industrial fiber laser based cutting machines <i>Benedikt Adelman Benedikt Neumeier, Max Schleier, Eugen Wilmann, Ralf Hellmann</i>	
14:15 - 14:30	Effects of ultrashort laser ablation in copper and stainless steel <i>Wagner de Rossi Denilson de Camargo Mirim, Nilson Dias Vieira Júnior, Ricardo Elgul Samad</i>	Deposition of Corrosion Resistant Alloy on to Low Alloyed Steel using LAAM for Oil & Gas Applications <i>Guijun Bi Hui-chi Chen, Bing Yang Lee, Beng Siong Lim</i>		Modeling of Transport Phenomena in Metal Fusion Cutting Using High Power Laser <i>Karim Kheloufi El Hachemi Amara</i>	
14:30 - 14:45	Direct Laser Beam Interference Patterning for Fabrication of Plasmonic Hole Arrays <i>Simonas Indrisiunas Bogdan Voisiat, Gediminas Raciukaitis</i>	High speed micro cladding using a high-power single-mode continuous-wave fiber laser and a polygon scanning system <i>Martin Erler Robby Ebert, Stefan Gronau, Matthias Horn, Sachsa Klötzer, Horst Exner</i>		Dynamic beam shaping for laser fusion cutting <i>Cindy Goppold Thomas Pinder, Patrick Herwig, Achim Mahrle, Andreas Wetzig, Eckhard Beyer</i>	
14:45 - 15:00	Temporal evolution of hole-geometry and influences of energy deposition during ultra-short pulses helical drilling <i>Chao He Claudia Hartmann, Christian Fornaroli, Frank Zibner, Arnold Gillner</i>	Selective Copper Plating on Polymers Induced by Laser Activated Fillers <i>Karolis Ratautas Mindaugas Gedvilas, Ina Stankevičienė, Aldona Jagminienė, Eugenijus Norkus, Nello Li Pira, Stefano Sinopoli, Umberto Emanuele, Gediminas Račiukaitis</i>		Flow diagnostic produced by SLM laser cutting nozzles <i>Stefan Ulrich Simon Jahn, Sabine Sändig, Burkhardt Fleck</i>	
15:00 - 15:15	Laser Micro-drilling of Multi-layered Artificial Skin <i>Yasuhiro Okamoto Kiichi Asako, Akira OKADA, Shogo Minagi, Naoto Maeda, Qiuyue Pan, Keiji Jin, Goro Nishigawa</i>	Free-form fabrication of steel parts by multi-layer laser cladding <i>Carmine Signorile Sabina Luisa Campanelli, Andrea Angelastro, Giuseppe Casalino, Antonio Domenico Ludovico</i>		Innovative distance control for laser cutting based on inline low coherence interferometry <i>Guilherme Mallmann Robert Schmitt, Timo Kosanke</i>	
15:15 - 15:30	Energy transfer mechanisms during laser pulsed processing of metals <i>Daniel Johannes Förster Volkher Onuseit, Rudolf Weber, Thomas Graf</i>			Areas of application for TEA CO ₂ -Laser induced shock waves <i>Stefan Veenas Frank Vollertsen</i>	
Coffee break		Coffee break		Coffee break	
Micro Processing: Ablation, Drilling and Micro-Cutting (We_A2_4), Chair Y. Okamoto		Macro Processing: Surface Treatment and Cladding (We_A32_4), Chair K. Partes		Macro Processing: Process Monitoring and Control (We_A31_4), Chair S. Katayama	
16:00 - 16:15	Highly reproducible laser micro drilling of titanium-based HLFC sections <i>Hamza Messaoudi Salar Mehrafsun, Geza Schrauf, Frank Vollertsen</i>	Industrial Laser Technologies for Shipbuilding (Invited) <i>Valeriy M. Levshakov Aleksandr N. Aleshkin, Natalia A. Steshenkova, Gleb A. Turichin, Nikolay A. Nosyrev</i>		Use of inline coherent imaging for laser welding processes: Process control and beyond <i>Thibault Bautze Markus Kogel-Hollacher</i>	
16:15 - 16:30	Calculating the optimal combination of pulse-to-pulse distance and fluence for scribing and patterning with ultrashort pulsed lasers <i>Matthias Domke Giovanni Piredda</i>	Laser direct metal deposition for alloy development: use of nominal composition alloy powder as compared to mixed powder feeding with matched composition <i>Javier Montero Maria Jose Tobar, Jose Manuel Amado, Eva Díaz, Armando Yáñez</i>		Seam tracking for fillet welds with scanner optics <i>Friedhelm Dorsch Holger Braun, Dieter Pfitzner</i>	
16:30 - 16:45	Laser ablation of SiCp/Al composite <i>Huanzhen Zhang Ting Huang, Rongshi Xiao</i>	Effect of Sensitization on Pitting Corrosion Resistance of Laser Melting 304 Stainless Steel <i>sami Ibrahim Al-rubaiey Mohammed Jasim Kadhim Al-Tameemi, Zaman abdualrazaq abdualwahab</i>		Using optical measuring techniques to investigate the hot cracking susceptibility of laser welded joints <i>Nasim Bakir Andrey Gumenyuk, Michael Rethmeier</i>	
16:45 - 17:00	Computational Study on the Effect of the Pulse Length on Laser Ablation Processes <i>Stefan Tatra Rodrigo Gómez Vázquez, Andreas Otto</i>	Influence of particle size on heat affected zone in laser cladding <i>Daichi Tanigawa Nobuyuki Abe, Masahiro Tsukamoto, Yoshihiko Hayashi, Hiroyuki Yamazaki, Yoshihiro Tatsumi, Mikio Yoneyama</i>		How fast is fast enough in the monitoring and controlling of laser welding? <i>Felix Tenner Florian Klämpfl, Michael Schmidt</i>	
17:00 - 17:15	Scaling of ablation rates. Ablation efficiency and quality aspects of "Burstmode"-micromachining of metals. <i>Marc Sailer Jonas Kleiner, Myriam Kaiser, Simone Russ</i>	Analysis and optimization of process parameters in Al-SiCp laser cladding <i>Ainhua Riquelme Aguado</i>		Autocorrelation analysis of plasma plume oscillations in deep penetration laser welding <i>Libor Mrňa Martin Šarbot</i>	
17:15 - 17:30	Analysis of shape geometry of Ti6Al4V parts fabricated by nanosecond laser ablation <i>Sabina Luisa Campanelli Nicola Contuzzi, Fulvio Lavecchia, Gianluca Percoco</i>	Strategies for high deposition rate additive manufacturing by Laser Metal Deposition <i>Antonio Candel Ruiz Oliver Müllerschön, Simon Abt</i>		On the detection of defects and of incorrect actuator settings in laser machining <i>Ralph Hohenstein</i>	
17:30 - 17:45	Crater shape dependence on pulse duration in crystalline silicon generated using an IR Gaussian laser beam: from femtosecond to microsecond regime <i>Stefano Buratin Carol Kong</i>				

LiM2015 Advance Program, Thursday, 25.6.2015		LiM2015 Advance Program, Thursday, 25.6.2015		LiM2015 Advance Program, Thursday, 25.6.2015	
Room "Edison", 1st Floor, Exhibition Hall A2 (A21/A22)		Room "Newton 2", 1st Floor, Exhibition Hall A3 (A32)		Room "Newton 1", 1st Floor, Exhibition Hall A3 (A31)	
<i>Micro Processing: Ablation, Drilling and Micro-Cutting (Th_A2_1), Chair A. Gillner</i>		<i>Macro Processing: Additive Manufacturing (Th_A32_1), Chair D. Drummer</i>		<i>Macro Processing: System Technology (Th_A31_1), Chair A. Fuchs</i>	
08:30 - 08:45	Nanoparticles fabricated by laser ablation in liquids for biomedical and energy applications <i>Stephan Barcikowski</i>	Hybrid lightweight design by laser additive manufacturing and laser welding processes <i>Frank Beckmann Claus Emmelmann</i>		Laser Fumes at fs Laser Processes – Product, Process and Environment Considerations <i>Stefan Jakschik</i>	
08:45 - 09:00	Production of silver nanoparticles in liquid by CW and pulsed lasers <i>Juan Pou Mohamed Boutinguiza, Rafael Comesaña, Fernando Lusquiños, Antonio Riveiro, Jesús del Val</i>	Effect of process conditions on mechanical behavior of Aluminium Wrought Alloy EN AW-2618 additively manufactured by Laser Beam Melting in powder bed <i>Michael Cornelius Hermann Karg Bhrihu Ahuja, Adam Schaub, Jochen Schmidt, Marius Sachs, Alexander Mahr, Sebastian Wiesenmayer, Leon Wigner, Karl-Ernst Wirth, Wolfgang Peukert, Marion</i>		System Technology for High Speed Laser Welding <i>Peter Hoffmann Bernd Pögel, Roland Dierken</i>	
09:00 - 09:15	Bioactive glass nanofibers produced by Laser Spinning for biomedical applications <i>Felix Quintero Martinez Joaquin Penide Duran, Antonio Riveiro Rodriguez, Jesus del Val Garcia, Rafael Comesaña Piñeiro, Fernando Lusquiños Rodriguez, Juan Pou Saracho</i>	The role of powder properties on the process-ability of Aluminium alloys in selective laser melting <i>Nesma T. Aboulkhair Ian Maskery, Ian Ashcroft, Chris Tuck, Nicola M. Everitt</i>		Latest trends in high power disk laser technology <i>Volker Rominger Marco Holzer, Matthias Koitzsch, Tracey Ryba</i>	
09:15 - 09:30	Femtosecond laser ablation in liquids of iron-based nanoparticles <i>Alexander Kanitz Jan Hoppius, M'Barek Chakif, Evgeny Gurevich, Andreas Ostendorf</i>	Hydrodynamic instabilities and ablation phenomena under the laser melting of powder layers <i>Yuri Chivel</i>		Creation of system for studying of optical materials and coatings for their damage threshold, mastering of measuring methodic. <i>Elena Krehova Alexander Ignatov, Vasily Kurakin, Anatoliy Pozdnyakov, Yuri Kalinin, Boris Krayev, Andrey Skrynnik, Michael Filipov, Vladimir Serebryakov</i>	
09:30 - 09:45	Formation of a periodically distributed inverted pyramid structure on silicon using direct laser interference ablation and surface etching processes <i>Airidas Žukauskas Bogdan Voisiat, Martynas Gavutis, Gediminas Račiukaitis</i>	Influence of local dependencies in additive layered manufacturing on serial process design for aerospace applications <i>Kai Schimanski Daniel Tolkendorf, Thorsten Schroeder, Bernhard Bahlmann</i>		Laser joining of glass and metal <i>Thomas Schmidt Benjamin Kipker, Ronny Bauer, Daniel Eilenberger, Sabine Sändig</i>	
09:45 - 10:00	Direct laser patterning as alternative method for production of THz components and plasmonic structures <i>Bogdan Voisiat Aidas Petryla, Gediminas Račiukaitis, Irmantas Kašalynas, Linas Minkevičius</i>	Selective deposition of polymer powder by vibrating nozzles for laser beam melting <i>Thomas Stichel Tobias Laumer, Philipp Amend, Stephan Roth</i>		Identification of process phenomena in DMLS by optical in-process monitoring. <i>Robert Domröse Thomas Grünberger</i>	
Coffee break		Coffee break		Coffee break	
<i>Micro Processing: Ablation, Drilling and Micro-Cutting (Th_A2_2), Chair W. de Rossi</i>		<i>Macro Processing: Additive Manufacturing (Th_A32_2), Chair D. Drummer</i>		<i>Macro Processing: System Technology (Th_A31_2), Chair A. Fuchs</i>	
10:30 - 10:45	Evaluation of picosecond laser induced shunt resistance in CIGS thin-film solar cells <i>Edgaras Markauskas Paulius Gečys, Gediminas Račiukaitis</i>	Additive Manufacturing – an introduction to the activities of Collaborative Research Center CRC 814 (Invited) <i>Dietmar Drummer</i>		New Approaches for seam tracked laser beam brazing and welding (Invited) <i>Daniel Reitemeyer Stefan Liebl, Florian Albert</i>	
10:45 - 11:00	Picosecond laser modification of thin-film CIGS solar cell absorber layer for P2 micro-welding process <i>Andrius Žemaitis Paulius Gečys, Gediminas Račiukaitis</i>				
11:00 - 11:15	Material modification of reinforcing glass fibers through pulsed laser radiation <i>Niels Schilling Benjamin Krupop, Udo Klotzbach, Scott White, Raj Patel</i>	Application of CO2 laser for 3D printing utilizing thermal assisted polymerization of PVC plastic <i>Mohammadreza Riahi Dehkordi</i>		Statistical distributions of the protection time of passive laser safety barriers – Normal distribution or is there a better description? <i>Florian Peter Lugauer Florian Moosbauer, Michael Friedrich Zäh</i>	
11:15 - 11:30	Laser Processing of Lithium Iron Phosphate Battery Electrodes <i>Adrian Hugh Alexander Lutey Alessandro Fortunato, Maurizio Fiorini, Simone Carmignato, Alessandro Ascari</i>	Additive manufacturing based on laser cladding of cp-Ti for dental implants <i>Felipe Arias-González Jesús del Val, Rafael Comesaña, Joaquín Penide, Fernando Lusquiños, Félix Quintero, Antonio Riveiro, Mohamed Boutinguiza, Juan Pou</i>		Development and integration of an adaptive focus position control system for a new high-performance laser remote welding head <i>Georg Cerwenka PD Dr.-Ing. habil. Jörg Wollnack, Prof. Dr.-Ing. Claus Emmelmann</i>	
11:30 - 11:45	Fabrication of microchannels by picosecond laser pulses spatially shaped with cylindrical lens <i>Ehsan Zahedi Daniel Förster, Volkher Onuseit, Rudolf Weber, Thomas Graf</i>	Additive process chain using selective laser melting and laser metal deposition <i>Benjamin Graf Michael Schuch, Robert Kersting, Andrey Gumenyuk, Michael Rethmeier</i>		Sub-100µs latency feedback control of laser machining using FPGA-powered inline coherent imaging <i>Ethan Jenkins Cole Van Vlack, Paul J. L. Webster, James M. Fraser</i>	
11:45 - 12:00	Experimental study on laser marking of alumina <i>Joaquín Penide Félix Quintero, Felipe Arias-González, Antonio Fernández, Jesús del Val, Rafael Comesaña, Antonio Riveiro, Fernando Lusquiños, Juan Pou</i>			Reinventing thermal laser power measurements <i>Susanne Dröscher Michele Zahner, Etienne Schwyter, Thomas Helbling</i>	
Lunch		Lunch		Lunch	

LiM2015 Advance Program, Thursday, 25.6.2015		LiM2015 Advance Program, Thursday, 25.6.2015		LiM2015 Advance Program, Thursday, 25.6.2015	
Room "Edison", 1st Floor, Exhibition Hall A2 (A21/A22)		Room "Newton 2", 1st Floor, Exhibition Hall A3 (A32)		Room "Newton 1", 1st Floor, Exhibition Hall A3 (A31)	
<i>Micro Processing: Ablation, Drilling and Micro-Cutting (Th_A2_3), Chair S. Barcikowski</i>		<i>Macro Processing: Additive Manufacturing (Th_A32_3), Chair M. Karg</i>		<i>(Th_A31_3),</i>	
14:00 - 14:15	On line evaluation of femtosecond laser ablation efficiency on copper structures <i>Jan Stefan Hoppius Alexander Kanitz, Benjamin Schöps, Evgeny Gurevich, Andreas Ostendorf</i>	Experimental and theoretical study of residual deformations and stresses at additive manufacturing by fusion <i>Andrey V. Gusarov Victor Saphronov</i>			
14:15 - 14:30	Reducing the roughness of the kerf for brass sheet cutting with the Laser MicroJet® by a systematic parameter study <i>Yixin Bai Annika Richmann, Jamie Paik, Bernold Richerzhagen</i>	Influence of process parameters on deposition dimensions in laser engineered net shaping <i>Fangyong Niu Guangyi Ma, Dongsheng Chai, Siyu Zhou, Dongjiang Wu</i>			
14:30 - 14:45	3D laser micro-machining for targets manufacturing <i>Remy Bourdenet</i>	Build-up strategies for generating components of cylindrical shape with Laser Metal Deposition <i>Torsten Petrat Benjamin Graf, Andrey Gumenyuk, Michael Rethmeier</i>			
14:45 - 15:00	Mechanical properties of ultrafast-laser cut polylactic acid films <i>Giovanni Piredda Rein Andreas, Johann Zehetner, Victor Matylitsky</i>	Influence of temperature gradients on the part properties for the simultaneous laser beam melting of polymers <i>Tobias Laumer Thomas Stichel, Philipp Amend, Michael Schmidt</i>			
15:00 - 15:15	Effect of the pulse duration on the surface roughness and the heat affected zone in laser micro polishing processes <i>Mikel Gomez-Aranzadi Antonio Dias, Miguel Martinez-Calderon, Ainara Rodriguez, Santiago Miguel Olaizola</i>	Laser sintering of silver filled conductive adhesive for generation of embedded electronic circuits in stereolithography parts <i>Bernd Niese Philipp Amend, Uwe Urmoneit, Stephan Roth, Michael Schmidt</i>			
15:15 - 15:30	Scanned Mask Imaging: The economical approach to high resolution micro-machining using UV solid state lasers <i>David Milne Zoe Knill</i>	Reliable Beam Positioning for Metal-based Additive Manufacturing by Means of Focal Shift Reduction <i>Christiane Thiel Martin Stubenvoll, Bernd Schäfer, Toni Krol</i>			
Coffee break		Coffee break		Coffee break	
<i>Micro Processing: Surface Functionalization (Th_A2_4), Chair S. Marzenell</i>		<i>Macro Processing: Additive Manufacturing (Th_A32_4), Chair B. Ahuja</i>		<i>(Th_A31_4),</i>	
16:00 - 16:15	Improving a Finite Element thermal simulation of the nanosecond laser ablation on silicon targets <i>Germano Galasso</i>	Hybridization of semiconductor micro particles with plasmonic nanoparticles during additive manufacturing <i>Marcus Lau Ralf Niemann, Mathias Bartsch, William O'Neill, Stephan Barcikowski</i>			
16:15 - 16:30	Improvement of the adhesion between CoCr and dental ceramics by laser surface structuring <i>Sina Hallmann René Nodop, Christian Daniel, Martin Weppler, Jügen Geis-Gerstorfer, Claus Emmelmann</i>	Simulation of the effect of different laser beam intensity profiles on the productivity of the Selective Laser Melting process <i>Tim Marten Wischeropp Raul Salazar, Dirk Herzog, Claus Emmelmann</i>			
16:30 - 16:45	Pulsed Laser Surface Pre-Treatment of Aluminium to Join Aluminium-Thermoplastic Hybrid Parts <i>Andre Heckert Christian Singer, Michael F. Zaeh</i>	Some optimization strategies for tool path generation in 3D laser metal deposition <i>Angel Rodríguez Maria Jose Tobar, Jose Manuel Amado, Javier Montero, Armando Yáñez</i>			
16:45 - 17:00	Surface conditioning of copper to improve the continuous wave laser micro welding <i>Nerea Otero Pablo Romero, Christian Hoff, Jörg Hermsdorf</i>	Laser printing and curing/sintering of silver paste lines for solar cell metallization <i>David Munoz-Martin Chen Yu, Andres Márquez, Miguel Morales, Carlos Molpeceres</i>			
17:00 - 17:15	Femtosecond laser manufacturing of highly hydrophobic hierarchical structures fabricated by combining surface microstructures and LIPSS <i>Miguel Martínez-Calderon Ainara Rodríguez, Antonio Dias, Mikel Gómez-Aranzadi, Santiago Miguel Olaizola</i>	TRIZ-based Biomimetic Part Design for Laser Additive Manufacturing <i>Tobias Kamps Christopher Muenzberg, Lukas Stacheder, Reinhart Gunther, Udo Lindemann</i>			
17:15 - 17:30	Comparison of UV- to M-IR laser for surface pre-treatment based on the ILSS-test <i>David Blass Stefan Kreling, Klaus Dilger</i>				
17:30 - 17:45					

Joint Sessions with ECLEO

LiM2015 Advance Program, Tuesday, 23.6.2015		
ICM 1st Floor, Room 13a, Joint Session with ECLEO		
<i>JSL: Diagnostics and Control (only Invited) (Tu_13a_1), Chair L. Overmeyer</i>		
08:30 - 09:00	Laser Process Monitoring and Control of Real Process Features (Invited)	<i>Stefan Kaierle</i>
09:00 - 09:30	Control of Femtosecond Pulsed Laser Deposition by Temporal Pulse Shaping (Invited)	<i>Florence Garrelie</i>
09:30 - 10:00	Ship-in-a-bottle Fabrication of Functional Biochips by Hybrid Femtosecond Laser Processing (Invited)	<i>Koji Sugioka</i>

Coffee break

LiM2015 Advance Program, Tuesday, 23.6.2015		
ICM 1st Floor, Room 13a, Tech Focus Sessions with ECLEO		
<i>TFI: Ultrafast Solid-State and Fibre Lasers (only Invited) (Tu_13a_3), Chair L. Overmeyer</i>		
14:00 - 14:30	Micromachining and Materials Processing with High Energy Ultrafast Fiber Lasers (Invited)	<i>Tim Gerke</i>
14:30 - 15:00	Mid IR Fiber Frequency Combs and Applications (Invited)	<i>Martin Fermann</i>
15:00 - 15:30	Industrial Ultrafast Lasers for Advanced Manufacturing Applications (Invited)	<i>Eric Mottay</i>

Coffee break

<i>TFII: Materials Structuring Using Short Laser Pulses (only Invited) (Tu_13a_4), Chair L. Overmeyer</i>		
16:00 - 16:30	Surface functionalization	<i>Rainer Kling</i>
16:30 - 17:00	Ultrafast Burst-Mode Fiber Lasers: Source Development and Material Processing (Invited)	<i>F. Oemer Ilday</i>
17:00 - 17:30	Additive and Subtractive 3D-Microfabrication of Micro/Nanostructures (Invited)	<i>Yongfeng Lu</i>