

# Monday 25 June Rooms 1 & 2

<b>Registration and Refreshments</b>		08:40 - 10:00
<b>Opening Remarks and Plenary Sessions - Room 1</b>		
<b>Mon-1-PL1</b> Payne, David	<b>The Fibre Laser Revolution</b> <i>University of Southampton, UK</i>	10:10
<b>Mon-1-PL2</b> Campbell, Michael	<b>Overview and status of Direct-Drive Inertial Confinement Fusion</b> <i>University of Rochester, USA</i>	10:50
<b>Mon-1-PL3</b> Okada, Naotada	<b>High Speed 3D printer using Laser Metal Deposition</b> <i>Toshiba, Japan</i>	11:30
<b>Lunch</b>		12:10 13:40

## Room 2 (JWC2)

### Special Session: Laser surface micro/nano structuring

<b>Mon-2-IN1</b> Ancona, Antonio	<b>Modifying steel surface tribology by ultrafast laser micro-texturing</b> <i>Istituto di Fotonica e Nanotecnologie (IFN) – CNR, Italy</i>	13:40
<b>Mon-2-OR2</b> Jiao, Yang	<b>Investigation of microstructural changes in a Zr-based amorphous alloy with nanosecond laser surface melting</b> <i>Cardiff University, UK</i>	14:10
<b>Mon-2-OR3</b> Stephan Brüning	<b>Large scale ultrafast laser micro texturing with multi-beams</b> <i>Schepers, Germany</i>	14:30
<b>Mon-2-OR4</b> Rößler, Florian	<b>Fabrication of hierarchical surface patterns using direct laser interference patterning as protection against mechanical damage</b> <i>Technische Universität Dresden, Germany</i>	14:50
<b>Refreshment Break</b>		15:10
<b>Mon-2-OR5</b> Lasagni, Andrés	<b>Micro-nano structuring of sleeves for roll-to-roll embossing processes using Direct Laser Interference Patterning</b> <i>Technische Universität Dresden, Germany</i>	15:40
<b>Mon-2-OR6</b> Giannuzzi, Giuseppe	<b>Surface texturing of steel with bursts of femtosecond laser pulses</b> <i>Istituto di Fotonica e Nanotecnologie, Italy</i>	16:00
<b>Mon-2-OR7</b> Moskal, Denys	<b>Shifted laser surface texturing (sLST) in burst regime</b> <i>University of West Bohemia, Czech Republic</i>	16:20
<b>Mon-2-OR8</b> Straeten, Kira van der	<b>Influence of Climatic Changes on the Joint Strength of Laser Joined Plastic-Metal Hybrids</b> <i>Fraunhofer Institute for Laser Technology, Germany</i>	16:40
<b>Mon-2-OR9</b> Sieffert, Paul Justus	<b>Influence of laser induced microstructures on the oxidation of solid carbon on platinum</b> <i>Universität Stuttgart, Germany</i>	17:00
		17:20

# Monday 25 June Room 3

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## Room 3 (Gibson)

### Electronics

13:40	<b>Mon-3-OR1</b> Račiukaitis, Gediminas	Local copper deposition on dielectrics using Selective surface activation induced by laser (SSAIL) <i>Centre for Physical Sciences and Technology, Lithuania</i>
14:00	<b>Mon-3-OR2</b> Okamoto, Yasuhiro	Effects of Polarization on Removal Characteristics of Silver Nanowires in Transparent Conductive Film by fs Pulsed Laser <i>Okayama University, Japan</i>
14:20	<b>Mon-3-OR3</b> Singh, Aryak	Damage-free ablation process for back-contacted silicon hetero-junction solar cells <i>Institut für Energie und Klimaforschung, Germany</i>
14:40	<b>Mon-3-OR4</b> Katayama, Hiroyuki	Femtosecond laser irradiation for the low contact resistance electrode fabrication on p-type gallium nitride <i>Tokushima University, Japan</i>
15:00	<b>Refreshment Break</b>	
15:40	<b>Mon-3-OR5</b> Nasrollahi, Vahid	Analytical and empirical approach for improving morphology and aspect ratio of micro holes' drilling with ultra-short pulsed lasers <i>University of Birmingham, UK</i>
16:00	<b>Mon-3-OR6</b> Geremia, Riccardo	Laser pulse overlap optimisation for ultrafast thin film patterning in an industrial environment <i>Oxford Lasers, UK</i>
16:20	<b>Mon-3-OR7</b> Chung, Woo-Sik	Investigation to increase the welding joint area with modulated laser beam welding over gap <i>Fraunhofer Institute for Laser Technology, Germany</i>
16:40	<b>Mon-3-IN8</b> Jia, Baohua	High precision laser fabrication of two-dimensional materials and devices <i>Swinburne University of Technology, Australia</i>
17:10	<b>Mon-3-OR9</b> Choi, Jiyeon	Ultrafast laser processing and engineering of material properties to innovate manufacturing of organic electronics <i>Korea Institute of Machinery and Materials, South Korea</i>
17:30		

# Monday 25 June Room 4

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## Room 4 (LT4)

### Modelling

<b>Mon-4-OR1</b>	<b>Effects of laser wavelength in internal modification of glass by ultrashort laser pulses</b>	13:40
Miyamoto, Isamu	<i>Osaka University, Japan</i>	14:00
<b>Mon-4-OR2</b>	<b>Femtosecond laser-induced thermal effects on thick polystyrene samples</b>	14:00
Wang, Xincal	<i>Nanyang Technological University, Singapore</i>	14:20
<b>Mon-4-OR3</b>	<b>Design, analysis and simulation for gas-assisted flow of supersonic nozzles for laser cutting</b>	14:20
Darwish, Mohamed	<i>University of Modena and Reggio Emilia, Italy</i>	14:40
<b>Mon-4-IN4</b>	<b>Sequential processes of volumetric restructuring of transparent materials by ultrashort laser pulses: Critical assessment through modelling and challenges</b>	14:40
Bulgakova, Nadezhda	<i>Institute of Physics of the Czech Academy of Sciences, Czech Republic</i>	15:10
<b>Refreshment Break</b>		
<b>Mon-4-IN5</b>	<b>Differentiating non-thermal ablation and heat accumulation toward ablation-cooled ultrafast-laser processing</b>	15:40
Qiao, Jie	<i>Rochester Institute of Technology, USA</i>	16:10
<b>Mon-4-IN6</b>	<b>Analysis and comparison of short and ultrashort pulsed laser ablation by means of multiphysical simulations</b>	16:10
Otto, Andreas	<i>Vienna University of Technology, Austria</i>	16:40
<b>Mon-4-OR6</b>	<b>Research on the factors affecting the processing results of laser ablation</b>	16:40
Zheng, Zongji	<i>Xi'an Jiaotong University, China</i>	17:00
<b>Mon-4-OR7</b>	<b>Temperature dependency of optical properties of metals: comparing ellipsometric data with theoretical models</b>	17:00
Schmid, Marc	<i>Bern University of Applied Science, Switzerland</i>	17:20
<b>Mon-4-OR8</b>	<b>The impact of fluence and intensity on the pulse laser ablation</b>	17:20
Takahashi, Takashi	<i>The University of Tokyo, Japan</i>	17:40

# Tuesday 26 June Room 2

## Room 2 (JWC2)

### Laser surfacemicro/nano structuring

09:00	<b>Tue-2-OR1</b>	<b>Liquid covered picosecond pulsed laser ablation of stainless steel: effect of liquid layer thickness on ablation efficiency</b>
09:20	van der Linden, Sietse	<i>Universite of Twente, Netherlands</i>
09:20	<b>Tue-2-OR2</b>	<b>Microfabrication of transparent thermosetting polymer PDMS using cavitation bubbles induced by conventional ns laser</b>
09:40	Hanada, Yasutaka	<i>Hirosaki University, Japan</i>
09:40	<b>Tue-2-OR3</b>	<b>Ultrashort laser-induced surface nanostructuring: from electromagnetic to hydrodynamic effects</b>
10:00	Rudenko, Anton	<i>Univ Lyon, France</i>
10:00	<b>Tue-2-IN4</b>	<b>Multi-physical modelling of laser nano- and micro-structuring of glasses</b>
10:30	Itina, Tatiana	<i>Univ Lyon, France</i>
10:30	<b>Refreshment Break</b>	
11:00	<b>Tue-2-IN5</b>	<b>Flexible nanostructuring of metal surfaces by femtosecond laser pulses</b>
11:30	Yang, Jianjun	<i>Chinese Academy of Science, China</i>
11:30	<b>Tue-2-OR6</b>	<b>Homogeneously distributed microstructures produced by Direct Laser Interference Patterning</b>
11:50	Aguilar, Alfredo	<i>Fraunhofer IWS, Germany</i>
11:50	<b>Tue-2-OR7</b>	<b>The TRUE antifouling capabilities of Laser processed surfaces, bio-inspired by springtails and tested under REALISTIC conditions</b>
12:10	Sikosana, Melissa	<i>Leibniz IPF, Germany</i>
12:10	<b>Lunch</b>	
13:40	<b>Tue-2-OR8</b>	<b>Subwavelength laser texturing using microsphere-assisted photonic jet array</b>
14:00	Romano, Jean-Michel	<i>Univ Birmingham, UK</i>
14:00	<b>Tue-2-OR9</b>	<b>Towards a numerical model of picosecond laser-material interaction in bulk sapphire</b>
14:20	Capuano, Luigi	<i>Universite of Twente, Netherlands</i>
14:20	<b>Tue-2-OR10</b>	<b>Study of wear resistance of laser-textured hardened stainless steel surfaces with superhydrophobic properties</b>
14:40	Girón, Antonio García	<i>Univ Birmingham, UK</i>
14:40	<b>Tue-2-OR11</b>	<b>Controlling and upscaling laser induced surface structuring</b>
15:00	Fraggelakis, Fotis	<i>University of Bordeaux, France</i>
15:00	<b>Refreshment Break</b>	
15:30	<b>Tue-2-OR12</b>	<b>Experimental investigation of the tribological and wettability properties of laser-textured martensitic steel surfaces</b>
15:50	Joshi, Gagandeep Singh	<i>Institute for Photonics and Nanotechnologies, Italy</i>
15:50	<b>Tue-2-OR13</b>	<b>Positive effect of laser structured surfaces on tribological performance</b>
16:10	Stark, Tobias	<i>Robert Bosch, Germany</i>
16:10	<b>Tue-2-OR14</b>	<b>Analysis and modelling of icing of engines' air intake protection grid structures and improvement of performances with surface laser patterning</b>
16:30	Vercillo, Vittorio	<i>University of Dresden, Germany</i>
16:30	<b>Tue-2-OR15</b>	<b>Laser-Induced Periodic Surface Structures (LIPSS) on polymers processed with picosecond laser pulses</b>
16:50	Mezera, Marek	<i>Universite of Twente, Netherlands</i>
16:50	<b>Tue-2-OR16</b>	<b>Advanced micro-structuring strategies on polymers using Direct Laser Interference Patterning</b>
17:10	Alamri, Sabri	<i>Institute for Werkstoff-und Strahltechnik, Germany</i>
17:10	<b>Poster Session with Drinks Reception</b>	
18:40		

# Tuesday 26 June Room 3

## Room 3 (Gibson)

### Industrial Applications

Tue-3-OR1 Lau, Marcus	Optical modification of ITO particles by sequential UV laser irradiation in a free liquid jet <i>Trumpf, Germany</i>	09:00
Tue-3-OR2 Jolliffe, Clifford	Combined galvanometer scanners and motion platforms over standard industrial networks <i>PI (Physik Instrumente), UK</i>	09:20
Tue-3-OR3 Thompson, Mark	Ultra-short fibre lasers enable low cost of ownership applications <i>IPG Photonics, UK</i>	09:40
Tue-3-OR4 Niino, Hiroyuki	Laser-induced ejection of millimetre-sized liquid droplet from metal surface with a 1 Joule/pulse ns-laser <i>AIST, Japan</i>	10:00
Tue-3-OR5 Oehler, Andreas	How a new random trigger-feature for ultrashort-pulsed laser increases throughput, quality and accuracy in micromachining <i>Lumentum, Switzerland</i>	10:20

### Refreshment Break

Tue-3-OR6 Matyitsky, Victor	High power industrial femtosecond lasers for $\mu$ -machining applications with highest quality and efficiency <i>Spectra-Physics, Austria</i>	10:40
Tue-3-OR7 Mendes, Marco	Recent Advances in Fibre Laser Microfabrication <i>IPG Photonics, USA</i>	11:00
Tue-3-OR8 Rosowski, Adam	Drilling of microholes using temporal pulse shaping with ns pulsed fibre lasers. <i>SPI Lasers, UK</i>	11:20

### Lunch

### Monitoring and Diagnostics

Tue-3-OR9 Michalek, Aleksandra	Inline LIPSS monitoring method employing light diffraction <i>Univ Birmingham, UK</i>	12:00
Tue-3-OR10 Bornschlegel, Benedikt	In-Situ Analysis of USP Ablation with High Repetition Rates <i>RWTH Aachen University, Germany</i>	12:40
Tue-3-OR11 Hollatz, Sören	Measurement of Keyhole Depth during Laser Beam Micro Welding with Scanners <i>Fraunhofer Institute for Laser Technology, Germany</i>	13:40
Tue-3-OR12 Somayaji, Madhura	Time resolved study of plasma luminescence in different dielectrics irradiated by subpicosecond besel laser pulses <i>Université de Lyon, France</i>	14:00

### Refreshment Break

Tue-3-OR13 Huber, Heinz	Early motion of matter observed by ultrafast ransient studies of reflectivity and absorption <i>Munich University of Applied Sciences, Germany</i>	15:00
Tue-3-OR15 Dryburgh, Paul	Targeted rework of powder bed fusion additive manufacturing <i>Advanced Component Engineering Laboratory, UK</i>	15:50
Tue-3-IN16 Kumkar, Malte	Multi Pulse Pump-Probe Diagnostics for Development of Advanced Transparent Materials Processing <i>TRUMPF, Germany</i>	16:10

### Poster Session with Drinks Reception

17:10

18:40

# Tuesday 26 June Room 4

## Room 4 (LT4)

### Microjoining

09:00	<b>Tue-4-OR1</b>	<b>On-line interferometric observation of thermomechanically induced refractive index changes during glass welding by ultra-short laser pulses</b>
09:20	<b>Cvecek, Kristian</b>	<i>Friedrich Alexander University Germany</i>
	<b>Tue-4-OR2</b>	<b>Application of fibre lasers in micro joining of thin structural alloys</b>
09:40	<b>Coroado, Julio</b>	<i>Welding Engineering and Laser Processing Centre, UK</i>
	<b>Tue-4-OR3</b>	<b>Localised modifications inside polycarbonate by using ultrashort laser pulses for microwelding applications</b>
10:00	<b>Nguyen, Nam-Phong</b>	<i>Fraunhofer Institute for Laser technology , Germany</i>
	<b>Tue-4-OR4</b>	<b>Micro joining of dissimilar metals with ns pulsed fibre lasers.</b>
10:20	<b>Gabzdyl, Jack</b>	<i>SPI Lasers, UK</i>
	<b>Tue-4-OR5</b>	<b>New approach for assembling dissimilar materials: laser technology</b>
10:40	<b>Henrottin, Anne</b>	<i>LASEA, Belgium</i>
<b>Refreshment Break</b>		
11:00	<b>Tue-4-OR6</b>	<b>Towards industrial application of ultrafast laser microwelding</b>
	<b>Carter, Richard</b>	<i>Heriot-Watt University, Edinburgh,</i>
11:20	<b>Tue-4-IN7</b>	<b>Application of pulsed fibre lasers in dissimilar joining of ultra-thin alloy</b>
11:50	<b>Ganguly, Supriyo</b>	<i>Cranfield University, UK</i>
12:10	<b>Lunch</b>	
13:40	<b>LIPPS</b>	
13:40	<b>Tue-4-IN8</b>	<b>Excitation of surface plasmon polaritons on non-metallic materials with intense femtosecond laser pulses and its application to nano-processing</b>
14:10	<b>Miyaji, Godai</b>	<i>Tokyo University of Agriculture and Technology, Japan</i>
	<b>Tue-4-OR9</b>	<b>Static and dynamic contact angle of water influenced by femto second laser based ripple structures on metals</b>
14:30	<b>Rung, Stefan</b>	<i>University of Applied Sciences Aschaffenburg, Germany</i>
	<b>Tue-4-OR10</b>	<b>Polarization conversion on nanostructured metallic surfaces fabricated by LIPSS</b>
14:50	<b>Casquero, Noemí</b>	<i>CEIT, Spain</i>
	<b>Tue-4-OR11</b>	<b>Stress-induced defects versus high-spatial frequency nanostructures on ultrafast laser-irradiated metal surfaces</b>
15:10	<b>Abou Saleh, Anthony</b>	<i>Université de Lyon, France</i>
<b>Refreshment Break</b>		
15:30	<b>Tue-4-OR12</b>	<b>Laser induced ripples' gratings for fabrication periodic pattern of diffraction holograms</b>
	<b>Jwad, Tahseen</b>	<i>Univ Birmingham, UK</i>
15:50	<b>Tue-4-OR13</b>	<b>Laser-induced periodic surface structures on Ytria-stabilized Zirconia ceramics by femtosecond double-pulse irradiations</b>
16:10	<b>Takehata, Masayuki</b>	<i>National Institute of Advanced Industrial Science and Technology, Japan</i>
	<b>Tue-4-OR14</b>	<b>Formation of laser-induced periodic surface structure on transparent materials with metal coating</b>
16:30	<b>Masayuki, Fujita</b>	<i>Institute for Laser Technology, Japan</i>
	<b>Tue-4-OR15</b>	<b>Femtosecond laser induced surface structuring of large bandgap dielectrics</b>
16:50	<b>Mirza, Inam</b>	<i>Institute of Physics of the Czech Academy of Science, Czech Republic</i>
	<b>Tue-4-OR16</b>	<b>Tailoring diamond's optical properties via direct femtosecond laser nanostructuring</b>
17:10	<b>Calderón, Miguel</b>	<i>Universidad de Navarra, Spain</i>
<b>Poster Session with Drinks Reception</b>		
18:40		

# Tuesday 26 June Room 5

## Room 5 (Cedar)

### Functional Surfaces

<b>Tue-5-OR1</b>	<b>Laser surface texturing of sintered and grey cast iron for tribological applications in refrigeration hermetic compressors: the effect of pulse duration on ablated crater rim formation</b> <i>Arnaldo del Cerro, Daniel</i> <i>Oxford Lasers, UK</i>	09:00
<b>Tue-5-OR2</b>	<b>Increasing productivity of ultrashort pulsed laser ablation for combination process with ns-laser</b> <i>Brenner, Andreas</i> <i>Fraunhofer-Institute for Laser Technology, Germany</i>	09:20
<b>Tue-5-OR3</b>	<b>Fabrication of superhydrophobic surfaces on titanium alloy using a nanosecond pulsed laser and thermal post-processing</b> <i>Rico Sierra, David</i> <i>University of Liverpool, UK</i>	09:40
<b>Tue-5-OR4</b>	<b>Enhancing surface functionalities by Direct Laser Interference Patterning – basic principles, industrial approaches and structure lifetime</b> <i>Kunze, Tim</i> <i>Fraunhofer-Institute for Material and Beam Technology, Germany</i>	10:00
<b>Tue-5-OR5</b>	<b>Biomimetic structures on glass fabricated with femtosecond laser pulses</b> <i>Florian, Camilo</i> <i>Laser Processing Group, Spain</i>	10:20
<b>Refreshment Break</b>		
<b>Tue-5-OR6</b>	<b>Short and ultrashort pulsed laser processing of zinc: resolidification morphology of ablated craters</b> <i>Mustafa, Hasib</i> <i>University of Twente, The Netherlands</i>	10:40
<b>Tue-5-OR7</b>	<b>Formation of broadband ultra-black absorbers using laser micro-structuring</b> <i>Barmina, Catherine</i> <i>Institute of the Russian Academy of Sciences, Russia</i>	11:00
<b>Lunch</b>		
<b>Direct Write</b>		
<b>Tue-5-OR8</b>	<b>Microscopic characterization of laser-written phenomena for component-wise testing of photonic integrated circuits</b> <i>Guan, Junn</i> <i>University of Oxford, UK</i>	11:20
<b>Tue-5-OR9</b>	<b>Femtosecond laser direct writing of PDMS/metal composite microstructure under different metal ion concentrations</b> <i>Katayama, Akito</i> <i>Keio University, Japan</i>	11:40
<b>Tue-5-OR10</b>	<b>Chemically assisted femtosecond laser micromachining in lithium niobate</b> <i>Sirutkaitis, Valdas</i> <i>Vilnius University, Lithuania</i>	12:10
<b>Tue-5-OR11</b>	<b>Suppression of bend loss in writing of three-dimensional optical waveguides with femtosecond laser pulses</b> <i>Liao, Yang</i> <i>Chinese Academy of Sciences, China</i>	12:40
<b>Refreshment Break</b>		
<b>Tue-5-OR12</b>	<b>Lowering the Threshold for Ultrafast Laser Photoinscription in Chalcogenide Glasses by Thermal Annealing</b> <i>D'Amico, Ciro</i> <i>Université de Lyon, France</i>	13:40
<b>Tue-5-OR13</b>	<b>Fast femtosecond laser-induced seed crystal precipitation in lanthanum borogermanate glass</b> <i>Lotarev, Sergey</i> <i>Mendeleev University of Chemical Technology of Russia, Russia</i>	14:00
<b>Tue-5-OR14</b>	<b>Fabrication of photonic crystal spatial filters in glass using Gaussian and Bessel beams</b> <i>Purlys, Vytautas</i> <i>Laser Research Centre, Lithuania</i>	14:20
<b>Tue-5-OR15</b>	<b>Fabrication of 3D metallic microstructures in glass using femtosecond laser microfabrication and electroless plating</b> <i>Xu, Jian</i> <i>East China Normal University, China</i>	14:40
<b>Poster Session with Drinks Reception</b>		

# Wednesday 27 June Room 2

## Room 2 (JWC2)

### Special Session: Ultra-short pulsed lasers

09:00	<b>Wed-2-IN1</b> Sommer, Steffen	<b>Large area surface structuring of metallic materials</b> <i>Dausinger + Giesen, Germany</i>
09:30	<b>Wed-2-OR2</b> Audouard, Eric	<b>Beam on demand for high throughput femtosecond processing</b> <i>AMPLITUDE Systemes, France</i>
09:50	<b>Wed-2-OR3</b> Schille, Joerg	<b>High-precision surface profiling using multi-hundred Watts ultrashort pulse lasers and ultrafast polygon-mirror based scanner</b> <i>University of Applied Sciences Mittweid, Germany</i>
10:10	<b>Wed-2-OR4</b> Gillner, Arnold	<b>High Power Laser Processing with Ultrafast and Multi-Parallel Beams</b> <i>Fraunhofer-Institute for Laser Technology, Germany</i>
10:30	<b>Refreshment Break</b>	
11:00	<b>Wed-2-IN5</b> Gökce, Bilal	<b>High-throughput nanoparticle generation by ultra-short pulsed laser ablation in liquids</b> <i>University of Duisburg-Essen, Germany</i>
11:30	<b>Wed-2-OR6</b> He, Chao	<b>High-efficiency sub-micrometre multi-beam interference structuring for large-scale surface using ultrashort laser pulses</b> <i>RWTH Aachen University, Germany</i>
11:50	<b>Wed-2-OR7</b> Lawton, David	<b>Safety Implications of using lasers during precision microfabrication</b> <i>Lasermet, UK</i>
12:10	<b>Lunch</b>	
13:40	<b>Wed-2-IN8</b> Loeschne, Udo	<b>High-rate laser micro processing - quo vadis?</b> <i>University of Applied Sciences Mittweida, Germany</i>
14:10	<b>Wed-2-OR9</b> Mottay, Eric	<b>High efficiency femtosecond ablation with GHz pulses</b> <i>AMPLITUDE Systemes, France</i>
14:30	<b>Wed-2-OR10</b> Qiang, Cao	<b>Repair of Nanoscale Defects by Femtosecond Laser</b> <i>Wuhan University, China</i>
14:50	<b>Refreshment Break</b>	
15:50	<b>Special Session: Laser micro/nano AM</b>	
15:50	<b>Wed-2-IN11</b> Campbell, Jack	<b>3D nano-printing custom laser targets: development and first commercial use</b> <i>Material Science Solutions, USA</i>
16:20	<b>Wed-2-OR12</b> Chung-Wei, Cheng	<b>Single Track of Selective Laser Melting Process: Modelling and Experimental Comparison</b> <i>National Chiao Tung University, Taiwan</i>
16:40	<b>Wed-2-OR13</b> Märten, Otto	<b>Advanced Beam Path Analysis in 3D Additive Manufacturing Systems</b> <i>PRIMES, Germany</i>
17:00		



# Wednesday 27 June Room 3

## Room 3 (Gibson)

### Optical devices

<b>Wed-3-OR1</b> Nazir, Saood	<b>A monolithic gimbal micro-mirror fabricated and remotely tuned with a femtosecond laser</b> <i>École Polytechnique Fédérale de Lausanne, Switzerland</i>	09:00
<b>Wed-3-OR2</b> Azkona, Julen	<b>Femtosecond Laser fabrication of Volume-Phase Gratings in CdSxSe1-x Quantum Dot doped Borosilicate Glass</b> <i>Universidad de Navarra, Spain</i>	09:20
<b>Wed-3-OR3</b> Ihleemann, Juergen	<b>Laser processing of silicon suboxide for the fabrication of multilevel fused silica diffractive phase elements</b> <i>Laser-Laboratorium Göttingen, Germany</i>	09:40
<b>Wed-3-IN4</b> Noda, Susumu	<b>Photonic Crystal Lasers</b> <i>Kyoto University, Japan</i>	10:00

### Refreshment Break

### Lasers and nanoparticles in liquids

<b>Wed-3-OR5</b> Zhang, Dongshi	<b>Spontaneous Growth of Femtosecond Laser Synthesized Ag@C Nanoparticles and ex-situ Formation of Functional Nanocomposites with SU-8</b> <i>RIKEN Centre for Advanced Photonics, Japan</i>	11:00
<b>Wed-3-OR6</b> Momoki, Koh	<b>Silicon nanoparticle generation by nanosecond pulsed laser irradiation on waste silicon powder</b> <i>Keio University, Japan</i>	11:20

### Lunch

### LIFT

<b>Wed-3-OR8</b> Zergioti, Ioanna	<b>Fluid dynamics of jetting by means of Laser Induced Forward Transfer</b> <i>National Technical University of Athens, Greece</i>	13:40
<b>Wed-3-OR9</b> Charipar, Kristin	<b>Low-profile interconnects via laser-induced forward transfer</b> <i>Naval Research Laboratory, USA</i>	14:00
<b>Wed-3-OR10</b> Narazaki, Aiko	<b>Apatite coating based on laser-induced forward transfer for dental treatment</b> <i>National Institute of Advanced Industrial Science and Technology, Japan</i>	14:20
<b>Wed-3-OR11</b> Zhang, Jun	<b>Sacrificial-layer free laser-induced forward transfer of mammalian cells</b> <i>Lasercenter, Germany</i>	14:40
<b>Wed-3-OR12</b> Giesbers, Merijn	<b>Printing with light</b> <i>Holst Centre, The Netherlands</i>	15:00

### Refreshment Break

<b>Wed-3-OR13</b> Sopeña, Pol	<b>Laser-induced forward transfer of silver nanowires for the production of transparent electrodes</b> <i>Universitat de Barcelona, Spain</i>	15:50
<b>Wed-3-OR14</b> Serra, Pere	<b>Laser-induced forward transfer with continuous wave radiation</b> <i>Universitat de Barcelona, Spain</i>	16:10
<b>Wed-3-OR15</b> Piqué, Alberto	<b>Use of an Elastomeric Donor for LIFT of Metal Foils</b> <i>Naval Research Laboratory, USA</i>	16:30

# Wednesday 27 June Room 4

## Room 4 (LT4)

### Medical and Biological Applications

09:00	<b>Wed-4-OR1</b>	<b>Tailoring Surface Properties of Rare Earth Magnesium Alloy for Biomedical Application Induced by Laser Processing</b>
09:20	<b>Guan, Yingchun</b>	<i>Beihang University, China</i>
09:40	<b>Wed-4-OR2</b>	<b>Biomimetic Anti-adhesive Surface Micro/Nano Structures of Electrosurgical Knife Fabricated by Fibre Laser</b>
10:00	<b>Li, Chen</b>	<i>Shaanxi University of Science and Technology, China</i>
10:20	<b>Wed-4-OR3</b>	<b>Ultrafast-laser fabrication of optical fibre diffusers for medical applications</b>
10:40	<b>Ströbl, Stephen</b>	<i>Vorarlberg University of Applied Sciences, Germany</i>
11:00	<b>Wed-4-OR4</b>	<b>Femtosecond micromachining of complex geometries for biomedical applications</b>
11:20	<b>Bruneel, David</b>	<i>Laser Engineering Applications, Belgium</i>
11:40	<b>Refreshment Break</b>	
12:00	<b>Wed-4-OR5</b>	<b>515nm ultrashort pulsed laser resection of colon tissue in a porcine model</b>
12:20	<b>Mohan Mohanan, Syam</b>	<i>Heriot-Watt University, Edinburgh</i>
12:40	<b>Wed-4-OR6</b>	<b>Ultrafast laser resection for high precision treatment of colorectal cancer</b>
13:00	<b>Beck, Rainer</b>	<i>Heriot-Watt University, Edinburgh</i>
13:20	<b>Wed-4-OR7</b>	<b>Investigation of Laser Processing of Biodegradable Nanofiber Nonwovens with Different Laser Pulse Durations</b>
13:40	<b>Götze, Marco</b>	<i>University of Applied Sciences Merseburg, Germany</i>
14:00	<b>Lunch</b>	
14:20	<b>Drill cut and mill</b>	
14:40	<b>Wed-4-OR8</b>	<b>Towards laser cutting in the ablation-cooled regime: Comparing 154 MHz fs-pulse bursts with single fs- and ns-pulses</b>
15:00	<b>Domke, Matthias</b>	<i>Vorarlberg University of Applied Sciences, Austria</i>
15:20	<b>Wed-4-OR9</b>	<b>Cost Modelling of Laser Drilling Process</b>
15:40	<b>Sarfraz, Shoaib</b>	<i>Cranfield University, UK</i>
16:00	<b>Wed-4-OR10</b>	<b>Micro/nano suspended particles assisted laser-induced backside wet dicing (LIBWD) of sapphire substrate</b>
16:20	<b>Xie, Xiaozhu</b>	<i>Guangdong University of Technology, China</i>
16:40	<b>Wed-4-OR11</b>	<b>Laser cutting of polymers with adapted NIR diode- and fibre laser systems</b>
17:00	<b>Brosda, Maximilian</b>	<i>Fraunhofer Institute for Laser Technology, Germany</i>
17:20	<b>Wed-4-OR12</b>	<b>400W laser Microjet technology: high work rate drilling and cutting</b>
17:40	<b>Laporte, Gregoire</b>	<i>Synova SA, Switzerland</i>
18:00	<b>Refreshment Break</b>	
18:20	<b>Wed-4-OR13</b>	<b>Parametric study of smooth sidewall micromachining by picosecond lasers</b>
18:40	<b>Sikora, Aurélien</b>	<i>Aix-Marseille University, France</i>
19:00	<b>Wed-4-OR14</b>	<b>Femtosecond laser ablation of Polyether ether ketone</b>
19:20	<b>Li, Qianliang</b>	<i>University of Liverpool, UK</i>
19:40	<b>Wed-4-OR15</b>	<b>Model of the Borehole Geometry for Helical Laser Drilling with Ultrashort Laser Pulses</b>
20:00	<b>Kroschel, Alexander</b>	<i>Universität Stuttgart, Germany</i>
20:20	<b>Wed-4-OR16</b>	<b>Application of latest generation fibre pulsed laser technology in scoring of ultrathin aluminium foils</b>
20:40	<b>Banat, Dominik</b>	<i>Cranfield University, UK</i>
21:00	<b>Wed-4-OR17</b>	<b>Picosecond burst machining as a flexible tool for process tailoring</b>
21:20	<b>Bovatssek, Jim</b>	<i>Spectra-Physics, USA</i>

# Wednesday 27 June Room 5

## Room 5 (Cedar)

### 3D Micro/Nano Fabrication

Wed-5-IN1 Yoshikawa, Hiroshi	Spatiotemporal Control of Crystal Growth of Biomolecules by Laser Ablation <i>Saitama University, Japan</i>	09:00
Wed-5-OR2 Fang, Zhiwei	Fabrication of high quality factor lithium niobate double-disk using a femtosecond laser <i>Chinese Academy of Sciences, China</i>	09:30
Wed-5-OR3 Jonušauskas, Linas	Quantitative laser induced damage threshold investigation of femtosecond laser lithography produced 3D structures <i>Laser Research Centre, Lithuania</i>	09:50
Wed-5-OR4 Geoffray, Isabelle	Structure modifications in ultra-low density metallic foams under laser radiation <i>CEA, France</i>	10:10
<b>Refreshment Break</b>		
Wed-5-INS5 Nakata, Yoshiki	Universal beam shaping technique and interference control for area processing of nanostructures in lattice <i>Institute of Laser Engineering, Japan</i>	10:30
Wed-5-OR6 Rodenas, Airán	Direct laser writing of nanophotonic structures inside crystals <i>Istituto di Fotonica e Nanotecnologie, Italy</i>	11:00
Wed-5-OR7 Charipar, Nicolas	Laser Patterning of Plasmonic Metasurfaces <i>Naval Research Laboratory, USA</i>	11:30
<b>Lunch</b>		
Wed-5-OR8 Grant-Jacob, James	Precision Manufacturing of Laser-Fabricated Nanofoam <i>University of Southampton, UK</i>	11:50
Wed-5-OR9 Herman, Peter	Novel 3D morphology from ultra-thin balloons to nano-channels formed in transparent film by femtosecond laser interference <i>University of Toronto, Canada</i>	12:10
Wed-5-OR10 Žemaitis, Andrius	Efficient ultrafast laser ablation for 3D structuring and engraving <i>Centre for Physical Sciences and Technology, Lithuania</i>	12:40
Wed-5-OR11 Qin, Jin	Enhancing the depth of sub-wavelength nano-focusing by hyperbolic metamaterials <i>University of Science and Technology of China, China</i>	13:10
Wed-5-OR12 Gailevicius, Darius	True 3D Nano-Structuring of Crystalline Inorganics <i>Laser Research Centre, Lithuania</i>	13:40
<b>Refreshment Break</b>		
<b>Beam shaping</b>		
Wed-5-OR13 Wang, Chaowei	SLM-based Two-photon polymerization of controllable micropillar arrays in controlled flow for particles trapping <i>University of Science and Technology of China, China</i>	15:20
Wed-5-OR14 Zang, Guodong	Application of ultrashort Bessel beams in the inscription of waveguide Bragg Gratings in fused silica <i>Université de Lyon, France</i>	15:50
Wed-5-OR15 Suhara, Hiroyuki	Beam shaping method using beam size and wavefront converters in ultrashort-pulse laser processing <i>RICOH, Japan</i>	16:10
Wed-5-OR16 Zhukov, Vladimir	Strong enhancement of laser energy coupling to transparent materials upon in-bulk focusing of doughnut-shaped laser pulses <i>Novosibirsk State Technical University, Russia</i>	16:30
		16:50
		17:10

# Thursday 28 June Room 2 (morning) Room 1 (afternoon)

## Room 2 (JWC2)

### Special Session: Laser Micro/Nano AM

09:00	<b>Thu-2-OR1</b> Askari, Meisam	<b>Multimaterial manufacture through combining optical tweezers with multiphoton fabrication</b> <i>University of Nottingham, UK</i>
09:20	<b>Thu-2-OR2</b> Serien, Daniela	<b>Femtosecond Two-Photon Polymerization of Photo initiator-Free Proteinaceous Microstructures Made From Serum Albumins</b> <i>RIKEN Centre for Advanced Photonics, Japan</i>
09:40	<b>Thu-2-IN3</b> Eason, Rob	<b>Laser direct-write of microfluidic flow channels via additive manufacturing for paper-based rapid diagnostics</b> <i>University of Southampton, UK</i>
10:10	<b>Thu-2-IN4</b> Sun, Hong-Bo	<b>Miniaturized intelligent robots enabled by femtosecond laser 3D nanoprinting</b> <i>Tsinghua University, China</i>
10:40	<b>Refreshment Break</b>	
11:00	<b>Thu-2-OR5</b> Sheppard, Alexander	<b>Automatic Particle Lens Array System for Efficient Nano-pattern Fabrication</b> <i>LIG Nanowise, UK</i>
11:20	<b>Thu-2-OR6</b> Malinauskas, Mangirdas	<b>Multi-Scale Rapid Laser 3D Printing</b> <i>Vilnius University, Lithuania</i>
11:40	<b>Thu-2-OR7</b> Fogel, Ofer	<b>3D Printing of Functional Metallic Microstructures and its Implementation in Electrothermal Actuator</b> <i>Orbotech, Israel</i>
12:00	<b>Thu-2-OR8</b> Gora, Wojciech	<b>Laser polishing for post-processing Additively Manufactured CoCr and Ti6Al4V parts</b> <i>Heriot-Watt University, Edinburgh</i>
12:20	<b>Lunch</b>	
13:40	<b>Final Session - Room 1</b>	
13:40	<b>Thu-1-FS1</b> Chichkov, Boris	<b>3D laser printing of biomaterials, nanoparticles and living cells</b> <i>Leibniz Universität, Germany</i>
14:10	<b>Thu-1-FS2</b> Grojo, David	<b>Exceeding the threshold of ultrafast laser writing in bulk Si: opening the horizon for 3D silicon photonics</b> <i>Aix-Marseille University, France</i>
14:40	<b>Thu-1-FS3</b> Zorba, Vassilia	<b>Novel ultrafast laser ablation sampling approaches in chemical imaging</b> <i>Lawrence Berkeley National Laboratory, USA</i>
15:10	<b>Awards and Closing Remarks</b>	
15:40		

# Thursday 28 June Room 3 (morning) Room 1 (afternoon)

## Room 3 (Gibson)

### LIFT Part 2

Thu-3-IN1 Delaporte, Philippe	Dual laser printing of metal <i>Aix-Marseille University, France</i>	09:00
Thu-3-OR2 Berg, Yuval	Embedded 3D interconnects in glass substrates by a combined laser trenching and printing process <i>Tel Aviv University, Israel</i>	09:30
Thu-3-OR3 Miksyt, Justinas	The effect of pulse duration for Laser-Induced Forward Transfer of viscous silver nanoparticle inks <i>University of Twente, The Netherlands</i>	09:50
Thu-3-OR4 Feinaeugle, Matthias	Laser-induced forward transfer (LIFT) of water soluble polyvinyl alcohol (PVA) polymers for use as support material for 3D-printed structures <i>University of Twente, The Netherlands</i>	10:10
<b>Refreshment Break</b>		
Thu-3-OR5 Wlodarczyk, Krystian	Laser-manufactured microfluidic devices for the study of mechanisms governing transporting porous media <i>Heriot-Watt University, Edinburgh,</i>	11:00
Thu-3-OR6 Roth, Gian-Luca	Vertical microchannels for microfluidic multilayer interconnections in PMMA—an innovative approach by fs laser radiation <i>University of Applied Sciences Aschaffenburg, Germany</i>	11:20
Thu-3-OR7 Butkus, Simas	Fabrication of High Aspect Ratio Channels in Fused Silica Using Femtosecond Pulses and Chemical Etching at Different Conditions <i>Vilnius University, Lithuania</i>	11:40
Thu-3-IN8 Osellame, Roberto	Femtosecond laser micromachining of transparent materials: an enabling tool for advanced application <i>Institute for Photonics and Nanotechnologies, Italy</i>	12:00
<b>Lunch</b>		
<b>Final Session - Room 1</b>		
Thu-1-FS1 Chichkov, Boris	3D laser printing of biomaterials, nanoparticles and living cells <i>Leibniz Universität, Germany</i>	12:30
Thu-1-FS2 Grojo, David	Exceeding the threshold of ultrafast laser writing in bulk Si: opening the horizon for 3D silicon photonics <i>Aix-Marseille University, France</i>	13:40
Thu-1-FS3 Zorba, Vassilia	Novel ultrafast laser ablation sampling approaches in chemical imaging <i>Lawrence Berkeley National Laboratory, USA</i>	13:40
<b>Awards and Closing Remarks</b>		
		15:10
		15:40

# Thursday 28 June Room 4 (morning) Room 1 (afternoon)

## Room 4 (LT4)

### Glass and ceramics

09:00	<b>Thu-4-OR1</b> <b>Ni, Jincheng</b>	<b>Helical microstructures fabricated by femtosecond structured optical vortices</b> <i>University of Science and Technology of China, China</i>
09:20	<b>Thu-4-OR2</b> <b>Lipatiev, Alexey</b>	<b>Crystalline architectures in glass: from space-selective glass crystallization to crystal-in-glass erasing and rewriting</b> <i>Mendeleev University of Chemical Technology of Russia, Russia</i>
09:40	<b>Thu-4-OR3</b> <b>Stroj, Sandra</b>	<b>Transparent antifogging glass surfaces generated by direct femtosecond laser structuring</b> <i>Vorarlberg University of Applied Sciences, Austria</i>
10:00	<b>Thu-4-OR4</b> <b>Kalupka, Christian</b>	<b>Ultrashort pulse processing of transparent ceramics: The role of electronic and thermal damage mechanisms</b> <i>Fraunhofer-Institute for Laser Technology, Germany</i>
10:20	<b>Thu-4-OR5</b> <b>Gärtner, Eric</b>	<b>Improvement of accuracy and surface roughness in laser micro machining of alumina</b> <i>Institute for Machine Tools and Forming Technology IWU, Germany</i>
10:40	<b>Refreshment Break</b>	
11:00	<b>Thu-4-IN6</b> <b>Gottmann, Jens</b>	<b>Subtractive 3D printing glass by selective laser-induced etching - fundamentals, applications and process chains</b> <i>LightFab, Germany</i>
11:30	<b>Thu-4-OR7</b> <b>Schwarz, Simon</b>	<b>Axicon fabrication with ultrashort pulsed and CO2 laser</b> <i>University of Applied Sciences, Germany</i>
11:50	<b>Thu-4-OR8</b> <b>Mayer, Rémi</b>	<b>High-aspect-ratio elliptical nanochannels for ultrafast laser stealth dicing of glass</b> <i>Univ. Bourgogne Franche-Comté, France</i>
12:10	<b>Thu-4-OR9</b> <b>Lopes, Amiel</b>	<b>High speed ultrafast laser based machining of glass</b> <i>Heriot-Watt University, Edinburgh</i>
12:30	<b>Lunch</b>	
13:40	<b>Final Session - Room 1</b>	
13:40	<b>Thu-1-FS1</b> <b>Chichkov, Boris</b>	<b>3D laser printing of biomaterials, nanoparticles and living cells</b> <i>Leibniz Universität, Germany</i>
14:10	<b>Thu-1-FS2</b> <b>Grojo, David</b>	<b>Exceeding the threshold of ultrafast laser writing in bulk Si: opening the horizon for 3D silicon photonics</b> <i>Aix-Marseille University, France</i>
14:40	<b>Thu-1-FS3</b> <b>Zorba, Vassilia</b>	<b>Novel ultrafast laser ablation sampling approaches in chemical imaging</b> <i>Lawrence Berkeley National Laboratory, USA</i>
15:10	<b>Awards and Closing Remarks</b>	
15:40		

# Thursday 28 June Room 5 (morning) Room 1 (afternoon)

## Room 5 (Cedar)

### Functional surfaces

Thu-5-OR1	Utilizing diffractive focus beam shaper for flat-top laser intensity generation for direct laser interference patterning	09:00
El-Khoury, Mikhael	<i>Institute for Werkstoff-und Strahltechnik, Germany</i>	09:20
Thu-5-OR2	Femtosecond Inscription inside Poly-Methyl Pentene with Numerical Aperture, Wavelength and with Polarised Helical Beams carrying Orbital and Spin Angular Momentum	09:40
Zhu, Guangyu	<i>University of Liverpool, UK</i>	10:00
Thu-5-OR3	High power, high pulse energy ultrashort pulse laser ablation of metals using spatially shaped beam profiles	10:20
Mikhaylov, Dmitriy	<i>Robert Bosch Manufacturing Solutions, Germany</i>	10:40
Thu-5-OR4	Elliptical Bessel beam for glass dicing	10:40
Gečys, Paulius	<i>Centre for Physical Sciences and Technology, Lithuania</i>	11:00
Thu-5-OR5	Vector beams with parabolic and elliptic cross-sections for laser material processing applications	11:30
Vosylius, Vitalis	<i>Industrial Laboratory for Photonic Technologies, Lithuania</i>	11:50
<b>Refreshment Break</b>		
Thu-5-IN6	Thermal and optical characteristics of a spatial light modulator under high power picosecond laser exposure for materials processing	12:10
Edwardson, Stuart	<i>University of Liverpool. UK</i>	12:30
Thu-5-OR7	Holographic femtosecond laser processing using complex-amplitude modulation for generating sub-diffraction-limit spot	13:40
Hasegawa, Satoshi	<i>Utsunomiya University, Japan</i>	13:40
Thu-5-OR8	Adaptive optics laser writing of fibre Bragg gratings	14:10
Salter, Patrick	<i>University of Oxford, UK</i>	14:40
Thu-5-OR9	Enhancing and inhibiting of femtosecond nonlinear interactions with spatial light modulated beam for elongating filaments, lowering waveguide loss, and accelerating etching rate	15:10
Alimohammadian, Ehsan	<i>University of Toronto, Canada</i>	15:10
<b>Lunch</b>		
<b>Final Session - Room 1</b>		
Thu-1-FS1	3D laser printing of biomaterials, nanoparticles and living cells	15:10
Chichkov, Boris	<i>Leibniz Universität, Germany</i>	15:40
Thu-1-FS2	Exceeding the threshold of ultrafast laser writing in bulk Si: opening the horizon for 3D silicon photonics	15:40
Grojo, David	<i>Aix-Marseille University, France</i>	16:10
Thu-1-FS3	Novel ultrafast laser ablation sampling approaches in chemical imaging	16:10
Zorba, Vassilia	<i>Lawrence Berkeley National Laboratory, USA</i>	16:40
<b>Awards and Closing Remarks</b>		
15:40		