

Program of the third Optics and Measurement International Conference  
11 - 14 October 2016

Tuesday

11<sup>th</sup> October 2016

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18.00 - 20.00 Registration and Welcome Drink in the Grand Hotel Imperial Liberec

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LECTURES

Wednesday

12<sup>th</sup> October 2016

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8.00 - 11.00 Registration

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9.00 Opening

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9.15 Guido Gubbels *Grinding and polishing of a steep freeform lens*

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9.45 Gerald Fütterer *Field lens multiplexing in holographic 3D displays by using Bragg diffraction based volume gratings*

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10.00 Karolina Macúchová *Innovative opto-mechanical design of a laser head for compact thin-disk*

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10.15 Štěpán Kunc *Passive optical resonator for experiment OSQAR LSW*

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10.30 Karel Blažek *CRYTUR, spol. s r. o.*

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10.45 **Coffee Break**

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11.15 Karel Žídek *Imaging in laser spectroscopy by a single-pixel camera based on speckle patterns*

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11.30 Celestino Ordoñez *Automatic road edge detection from Mobile Laser Scanning (MLS)*

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11.45 Petr Březina *When the measurement fails - vibrations in environment, trends, and solutions*

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12.00 Gerald Fütterer *Reducing forces during drilling brittle hard materials by using ultrasonic and variation of coolant*

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12.15 Jaroslav Polák *Time to involve neural networks into optimization of polishing process*

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12.30 **Lunch**

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14.00 Sven R Kiontke *Challenges in manufacturing high precision aspheric lenses*

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14.30 Cyril J Bourgenot *Diamond machining of a single shot ellipsoidal focusing plasma mirror*

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14.45 Celestino Ordoñez *Detection and magnification of bridge displacements using video images*

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15.00 Dmitriy Vorontsov *Characterization of diffraction gratings scattering in UV and IR for space applications*

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15.15 Darina Jašíková *Visualization and measurement of the air film close ultrahydrophobic surfaces*

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15.30 **Coffee Break**

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16.00 bus no. 1

16.30 bus no. 2

Tour of the Glass factory

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9.00	Ulrike Fuchs	<i>Thoughts on tolerancing aspheric surfaces for optimized manufacturing</i>
9.30	Marek Škereň	<i>Diffractive beam shapers for white LED illumination systems</i>
9.45	Guoyu Yu	<i>Development of Swinging Part Profilometer for Optics</i>
10.00	Alexandre Z Guarato	<i>Qualification of a 3D structured light sensor for a reverse engineering application</i>
10.15	Jean Pierre Lormeau	<i>Freeform metrology using subaperture stitching interferometry</i>
10.30	Vít Lédl	<i>TOPTec Research Centre</i>
<b>10.45</b>	<b>Coffee Break</b>	
11.15	Libor Švéda	<i>Simulations of lenseless imaging in water window</i>
11.30	Martin Klečka	<i>OptiXs, s.r.o.</i>
11.45	Pavel Psota	<i>Multi-wavelength digital holography for shape measurement of grinded surfaces with ultimate accuracy</i>
12.00	Jan Kredba	<i>Positioning system and lattice design for subaperture stitching interferometry</i>
12.15	Josef Lazar	<i>Real-time Measurement of Gigacycle Fatigue through Differential Interferometry</i>
<b>12.30</b>	<b>Lunch</b>	
14.00	Karel Blažek	<i>Company view on the R&amp;D, technology transfer and market in the scintillation field.</i>
14.30	Marek Peca	<i>Absolute and relative surface profile interferometry using multiple frequency-scanned lasers</i>
14.45	Libor Mrňa	<i>Use of schlieren methods for studying of gas flow in laser technology</i>
15.00	Pavel Mokrý	<i>Digital holographic tomography method for 3D observation of domain patterns in ferroelectric single crystals</i>
15.15	Libor Úlehla	<i>Meopta - optika, s.r.o.</i>
<b>15.30</b>	<b>Coffee Break</b>	
16.00	Stefan Krämer	<i>Mahr Metrology for Precision Optics</i>
16.15	Libor Mořka	<i>Wavefront detection by Shack-Hartmann sensors</i>
16.30	Yahya Yuksek	<i>Plasmonic resonances in sub-terahertz fishnet metamaterial based on complementary hexagonal resonator</i>
16.45 - 17.30	Poster Session	
17.30 - 17.45	Best Student Czech & Slovak Paper Award	
<b>19.00</b>	<b>Informal Meeting in the Puor Plaudit Reastaurant</b>	

## POSTER SESSION

Thursday, 13<sup>th</sup> October 2016, 16.45 - 17.30

<b>Board</b>	<b>Prime Author</b>	<b>Title</b>
01A	Arkadiusz Swat	<i>Minimising back reflections from the common path objective in a fundus camera</i>
01B	Darina Jašíková	<i>Experimental setup for laser-induced breakdown in aqueous media</i>
02A	David Vápenka	<i>Attempt to prepare perovskite PZT at low temperatures using IBAD</i>
02B	Domna G Kotsifaki	<i>Design and experimental evaluation of the optical trapping technique which is integrated with microfluidic device and/or plasmonic nanostructure device</i>
03A	Karel Židek	<i>Compact and robust hyperspectral camera based on compressed sensing</i>
03B	František Procháska	<i>Zeeko Precession for free form polishing</i>
04A	Ivana Poláková	<i>Subaperture teflon tools in their application in CNC polishing machines</i>
04B	František Procháska	<i>FEM analysis of bonding process used for minimization of deformation of optical surface under Metis coronagraph mirrors manufacturing</i>
05A	Jan Hošek	<i>Geometric Calibration of Rotational Kaleidoscopic Instrument</i>
05B	Jan Václavík	<i>Durable Antireflection Coating for Ge and ZnSe Substrates Based on Ge/YF<sub>3</sub> Multilayer</i>
06A	Jirí Budasz	<i>Losses in TiO<sub>2</sub>/SiO<sub>2</sub> Multilayer Coatings</i>
06B	Jiří Hlubuček	<i>Control of chemical composition of PZT thin films produced by ion-beam deposition from a multicomponent target</i>
07A	Jirí Budasz	<i>Broadband antireflective coating for NEOSTED</i>
07B	Jiří Beneš	<i>The Design of the Control Algorithm for Corrective Manufacturing of 5 axis Machining Centre</i>
08A	Marek Škerek	<i>Matrix laser lithography as a tool for producing of general diffractive elements</i>
08B	Martin Veselý	<i>The mounting system of lenses in ASPIICS coronagraph</i>
09A	Michal Špína	<i>Scratch and dig analysis for Metis mirrors surfaces defects evaluation</i>
09B	Miroslava Holá	<i>Coordinate interferometric system for measuring the position with infrared telecom laser diode</i>

10A	Ondřej Matoušek	<i>Methods for refractive-index homogeneity calculation using Fourier-transform phase-shifting interferometry</i>
10B	Pavel Mokrý	<i>Iterative method for solving the eikonal equation</i>
11A	Petr Horník	<i>Possibilities in optical monitoring of laser welding process</i>
11B	Pavel Mokrý	<i>Multi-scale simulations of the wavefront deformation of the optical wave passing through the domain patterns in ferroelectric single crystal</i>
12A	Petr Pokorný	<i>Effect of finite dimensions of diffraction grating to Talbot imaging</i>
12B	Pavel Psota	<i>Robust retrieval of optical surfaces phase maps in sub-Nyquist multi-wavelength interferometry</i>
13A	Pavel Pintr	<i>Four new variable stars in Cassiopea discovered with DSLR camera</i>
13B	Petr Vojtíšek	<i>Monitoring of overmodulation effect in high efficient generally slanted transmission gratings produced in photopolymers</i>
14A	Zdeněk Rail	<i>The Simulation of the Residual Optical Aberrations of the 8" Clark Objective of the Astronomical Observatory in Ondřejov</i>
14B	Petra Horodyská	<i>Influence of oxygen on the quality of the PZT thin films prepared by IBS</i>
15A	Radek Melich	<i>Design, manufacturing, performance and application of a wide angle aspherical doublet</i>
15B	Roman Doleček	<i>Heat and mass transfer measurement using method of digital holographic tomography</i>
16A	Stanislav Michal	<i>Correction of Ti-sapphire disc using MRF method</i>
16B	Tomáš Thoř	<i>Sol-gel preparation of Silica and Titania thin films</i>
17A	Vít Lédl	<i>Sensitivity vector map retrieval in multiwavelength holography used for shape measurement</i>
17B	Marek Stašík	<i>Sub-aperture stitching for data measured on spherical and aspherical lenses using interferometry</i>