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Editors

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Contents

xi	<i>Conference Committees</i>
xiii	<i>Introduction and Photo Gallery</i>

SESSION 1 CLASSICAL OPTICS

- 8697 02 **Application of optical elements for temporal and spatial transformation of ultra-short and ultra-intense light pulses** [8697-21]
L. Stanke, Institute of Physics of the ASCR, v.v.i. (Czech Republic); J. Křepelka, M. Palatka, P. Schovánek, M. Hrabovský, Joint Lab. of Optics of Palacky Univ. and Institute of Physics of the ASCR, v.v.i. (Czech Republic)
- 8697 03 **Approach for modeling influence of birefringence dispersion on polarization properties of multi-section systems** [8697-40]
P. L. Makowski, A. W. Domanski, Warsaw Univ. of Technology (Poland)
- 8697 04 **Space domain interpretation of incoherent moiré superimpositions using FABEMD** [8697-17]
M. Trusiak, K. Patorski, Warsaw Univ. of Technology (Poland)
- 8697 05 **Continuous wavelet transform processing of fringe patterns containing multiple fringe sets** [8697-29]
K. Pokorski, K. Patorski, Warsaw Univ. of Technology (Poland)
- 8697 06 **Method of residual birefringence measurements in interferometer with increased sensitivity** [8697-79]
M. Borwińska, W. A. Woźniak, Wrocław Univ. of Technology (Poland)
- 8697 07 **Computational approach to homodyne detection of interference phase** [8697-98]
Š. Řeřucha, Z. Buchta, M. Šarbort, J. Lazar, O. Číp, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 08 **Holographic recording and LDM (Invited Paper)** [8697-54]
D. Senderakova, V. Mesáros, A. Štrba, Comenius Univ. (Slovakia)
- 8697 09 **Photopolymer recording material with AgBr nanoparticles for optical holography** [8697-94]
M. Květoň, Czech Technical Univ. in Prague (Czech Republic); A. Havránek, Charles Univ. in Prague (Czech Republic); P. Fiala, M. Škereň, I. Šimová, Czech Technical Univ. in Prague (Czech Republic)
- 8697 0A **Correlation properties of simulated speckle effect modified by a fractal** [8697-46]
I. Hamarová, P. Horváth, P. Šmíd, M. Hrabovský, Joint Lab. of Optics of Palacky Univ. and Institute of Physics of the ASCR, v.v.i. (Czech Republic)
- 8697 0B **White-light interferometry, Hilbert transform, and noise** [8697-49]
P. Pavlíček, V. Michálek, Joint Lab. of Optics of Palacky Univ. and Institute of Physics of the ASCR, v.v.i. (Czech Republic)

- 8697 0C **Discontinuous behaviour of polarization angular parameters at the poles of Poincare sphere** [8697-35]
B. Bieg, J. Chrzanowski, Yu. A. Kravcov, Maritime Univ. of Szczecin (Poland)
- 8697 0D **Novel principle of contactless gauge blocks length measurement** [8697-19]
Z. Buchta, Š. Řeřucha, B. Mikel, M. Čížek, J. Lazar, O. Číp, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 0E **Displacement measurement with over-determined interferometer** [8697-90]
J. Lazar, M. Holá, J. Hrabina, Z. Buchta, O. Číp, J. Oulehla, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 0F **Evaluation of ultra-low expansion spacer in the Fabry-Perot cavity with optical frequency comb** [8697-103]
R. Šmíd, M. Čížek, Z. Buchta, J. Lazar, O. Číp, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 0G **High-resolution detection of small distance changes by an optical frequency comb (Invited Paper)** [8697-112]
O. Číp, M. Čížek, Z. Buchta, B. Mikel, J. Lazar, R. Šmíd, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 0H **Digital processing of signals from femtosecond combs** [8697-102]
M. Čížek, R. Šmíd, Z. Buchta, B. Mikel, J. Lazar, O. Číp, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 0I **Use of matrix optics to analyze the complex multi-group zoom systems** [8697-42]
T. Kryszczyński, Institute of Applied Optics (Poland); M. Leśniowski, Warsaw Univ. of Technology (Poland); J. Mikucki, Institute of Applied Optics (Poland)
- 8697 0J **Using Geant4 toolkit for simulations of optical systems with rough isotropic surfaces using BRDF profiles** [8697-73]
L. Nozka, Joint Lab. of Optics of Palacky Univ. and Institute of Physics of the ASCR, v.v.i. (Czech Republic); M. Pech, D. Mandat, M. Hrabovský, P. Schovánek, Palacký Univ. Olomouc (Czech Republic); M. Palatka, Joint Lab. of Optics of Palacky Univ. and Institute of Physics of the ASCR, v.v.i. (Czech Republic)
- 8697 0K **The optical power distribution in a dark room** [8697-15]
A. Liner, M. Papes, J. Vitasek, P. Koudelka, J. Látal, J. Cubik, V. Vašínek, VSB-Technical Univ. of Ostrava (Czech Republic)
- 8697 0L **The fog influence on bit error ratio** [8697-13]
J. Vitasek, J. Látal, V. Vašínek, S. Hejduk, A. Liner, M. Papes, P. Koudelka, A. Ganiyev, VSB-Technical Univ. of Ostrava (Czech Republic)
- 8697 0M **Advanced optical document security elements** [8697-18]
M. Škereň, J. Svoboda, M. Possolt, M. Květoň, P. Fiala, Czech Technical Univ. in Prague (Czech Republic)
- 8697 0N **Computer control of combustion process by flame colored components** [8697-67]
L. Bartoněk, J. Kepřt, L. Schlattauer, Palacký Univ. Olomouc (Czech Republic)

- 8697 0O **Evaluation of intraocular lens implant location in the eyeball basing on the Purkinje images** [8697-84]
A. Jóźwik, D. Siedlecki, M. Zajac, Wroclaw Univ of Technology (Poland)
- 8697 0P **Numerical analysis of variability of the eye pupil geometry based on the fast video recording** [8697-56]
M. A. Szmigiel, H. Kasprzak, Wroclaw Univ. of Technology (Poland)

SESSION 2 MANIPULATIONS WITH PARTICLES, PARTICLE TRAPPING, AND MICROSCOPY

- 8697 0Q **Rotating point spread function in spiral phase contrast imaging with discrete phase modulation** [8697-37]
M. Baránek, Z. Bouchal, Palacký Univ. Olomouc (Czech Republic)
- 8697 0R **Optical forces in higher order Bessel beam** [8697-22]
M. Šiler, P. Jákl, L. Chvátal, P. Zemánek, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 0S **Metallic Core-shell particle in a standing wave** [8697-65]
L. Chvátal, M. Šiler, P. Zemánek, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 0T **Optical binding of unlike particles** [8697-78]
V. Karásek, P. Zemánek, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 0U **Dynamic size tuning of multidimensional optically bound matter** [8697-9]
O. Brzobohatý, V. Karásek, M. Šiler, P. Zemánek, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 0V **Behaviour of self-arranged chain of colloidal particles in a travelling standing wave (Invited Paper)** [8697-41]
P. Zemánek, M. Šiler, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic); T. Čižmár, Univ. of St. Andrews (United Kingdom)
- 8697 0W **Microfluidic systems for optical sorting** [8697-70]
J. Ježek, Z. Pilát, M. Šerý, J. Kaňka, O. Samek, S. Bernatová, P. Zemánek, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 0X **Particle position measuring with optical tweezers using video processing** [8697-47]
S. Drobczyński, M. Bacia, Wroclaw Univ. of Technology (Poland); M. Woźniak, K. Symonowicz, Wrocław Medical Univ. (Poland)
- 8697 0Y **Raman spectroscopy for bacterial identification and characterization** [8697-100]
S. Bernatová, O. Samek, Z. Pilát, M. Šerý, J. Ježek, V. Krzyžánek, P. Zemánek, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic); F. Růžička, Masaryk Univ. (Czech Republic)
- 8697 0Z **New scanning technique for optical vortex microscopy** [8697-89]
A. Popiołek-Masajada, J. Masajada, I. Augustyniak, Wroclaw Univ. of Technology (Poland)

- 8697 10 **Laser scanning confocal microscopy in materials engineering** [8697-92]
J. Tomáščík, Palacký Univ. Olomouc (Czech Republic); H. Šebestová, R. Čtvrtlík,
P. Schovánek, Joint Lab. of Optics of Palacky Univ. and Institute of Physics of the ASCR,
v.v.i. (Czech Republic)
- 8697 11 **Coherent imaging with incoherent light in digital holographic microscopy (Invited Paper)**
[8697-110]
R. Chmelík, Brno Univ. of Technology (Czech Republic)
- 8697 12 **System for coherence-controlled holographic microscopy of living cells** [8697-12]
M. Antoš, J. Čolláková, P. Veselý, R. Chmelík, A. Křížová, Brno Univ. of Technology (Czech
Republic)
- 8697 13 **Theoretical study of coherence-controlled holographic microscopy in the presence of
scattering media** [8697-111]
M. Henzlová, M. Lošťák, R. Chmelík, Brno Univ. of Technology (Czech Republic)

SESSION 3 LASERS

- 8697 14 **Quasi-continuously pumped acousto-optically mode-locked highly-doped Nd:YAG laser
in bounce geometry** [8697-61]
M. Jelínek, V. Kubeček, D. Vyhliđal, Czech Technical Univ. in Prague (Czech Republic)
- 8697 15 **Passively mode-locked quasi-continuously pumped Yb:YAG laser** [8697-63]
P. Szołkowski, V. Kubeček, Czech Technical Univ. in Prague (Czech Republic)
- 8697 16 **Comparison of noise properties of laser sources intended for multidimensional
interferometric tools** [8697-88]
J. Hrabina, J. Lazar, O. Číp, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech
Republic)
- 8697 17 **Optical and laser properties of new Er:Yb zinc-silicate glasses** [8697-68]
P. Szołkowski, V. Kubeček, Czech Technical Univ. in Prague (Czech Republic); S. Staněk,
P. Nekvindová, B. Švecová, M. Míka, Institute of Chemical Technology (Czech Republic)
- 8697 18 **Wideband and high-power light sources for in-line interferometric diagnostics of laser
structuring systems** [8697-58]
P. Peterka, F. Todorov, I. Kašík, V. Matějec, O. Podrazký, Institute of Photonics and
Electronics of the ASCR, v.v.i. (Czech Republic); L. Šašek, Safibra, s.r.o. (Czech Republic);
G. Mallmann, Fraunhofer Institute for Production Technology (Germany); R. Schmitt,
Fraunhofer Institute for Production Technology (Germany) and RWTH Aachen (Germany)
- 8697 19 **Increasing of the frequency stability of the 760nm wavelength DFB laser diode for laser
interferometry** [8697-99]
B. Mikel, Z. Buchta, J. Lazar, O. Číp, Institute of Scientific Instruments of the ASCR, v.v.i.
(Czech Republic)

- 8697 1A **Analysis on non-stationary thermo-optical effects occurring in laser mirrors under high heat load** [8697-8]
M. Kaskow, Military Univ. of Technology (Poland); J. Tarka, Wroclaw Univ. of Technology (Poland); L. Gorajek, J. K. Jabczynski, W. Zendzian, J. Kwiatkowski, Military Univ. of Technology (Poland)
- 8697 1B **Laser damage testing of optical components under cryogenic conditions** [8697-101]
J. Oulehla, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic) and Palacký Univ. Olomouc (Czech Republic); P. Pokorný, J. Lazar, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 1C **Influence of the dentin surface properties on the laser radiation absorption** [8697-93]
H. Chmelickova, H. Sebestova, H. Hiklova, L. Rihakova, Joint Lab. of Optics of Palacký Univ. and Institute of Physics of the ASCR, v.v.i. (Czech Republic)

SESSION 4 FIBERS

- 8697 1D **Spectral-domain measurement of strain sensitivity of a two-mode birefringent holey fiber** [8697-5]
P. Hlubina, VSB-Technical Univ. of Ostrava (Czech Republic); J. Olszewski, T. Martynkien, Wroclaw Univ. of Technology (Poland); P. Mergo, M. Makara, K. Poturaj, Lab. of Optical Fibre Technology, Maria Curie-Skłodowska Univ. (Poland); W. Urbańczyk, Wroclaw Univ. of Technology (Poland)
- 8697 1E **Zero-dispersion wavelength measurement of fiber polarization modes using a supercontinuum source** [8697-7]
M. Kadulová, P. Hlubina, D. Ciprian, VSB-Technical Univ. of Ostrava (Czech Republic)
- 8697 1F **Discrete light propagation in microstructured fibers infiltrated with liquid crystals** [8697-20]
K. A. Rutkowska, K. Orzechowski, Warsaw Univ. of Technology (Poland)
- 8697 1G **Nonlinear phenomena in all solid photonic crystal fibers with nanostructured core** [8697-69]
J. Pniewski, R. Kasztelaniec, Univ. of Warsaw (Poland); D. Pysz, R. Stępień, Institute of Electronic Materials Technology (Poland); R. Buczyński, Univ. of Warsaw (Poland) and Institute of Electronic Materials Technology (Poland)
- 8697 1H **Theoretical study of optical switching in multiple core nonlinear microstructured optical fibers** [8697-71]
P. Koška, J. Kaňka, Institute of Photonics and Electronics of the ASCR, v.v.i. (Czech Republic)
- 8697 1I **Stimulated Brillouin scattering for generating an acoustic wave in optical fibers** [8697-87]
M. Holík, Brno Univ. of Technology (Czech Republic); B. Mikel, Brno Univ. of Technology (Czech Republic) and Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic); F. Urban, Brno Univ. of Technology (Czech Republic)
- 8697 1J **Progress in thulium doped fiber lasers and amplifiers (Invited Paper)** [8697-75]
P. Honzátko, P. Vojtisek, B. Vitovec, Institute of Photonics and Electronics (Czech Republic)

- 8697 1K **All fiber nonreciprocal ring laser** [8697-74]
P. Vojtíšek, Institute of Photonics and Electronics (Czech Republic) and Czech Technical Univ. in Prague (Czech Republic); P. Honzátko, Institute of Photonics and Electronics (Czech Republic)
- 8697 1L **Numerical modeling of all-fiber passively Q-switched fiber lasers** [8697-80]
P. Zahradnik, Czech Technical Univ. in Prague (Czech Republic) and Institute of Photonics and Electronics, ASCR, v.v.i. (Czech Republic); P. Peterka, P. Honzátko, Institute of Photonics and Electronics of the ASCR, v.v.i. (Czech Republic); P. Vojtíšek, Czech Technical Univ. in Prague (Czech Republic) and Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 1M **Self-induced laser line sweeping and self-pulsing in rare-earth doped fiber lasers** [8697-96]
P. Navratil, P. Vojtíšek, P. Peterka, P. Honzátko, Institute of Photonics and Electronics of the ASCR, v.v.i. (Czech Republic); V. Kubeček, Czech Technical Univ. in Prague (Czech Republic)
- 8697 1N **Metal oxide layer influence on the sensitivity of SPR fiber optic sensor** [8697-11]
D. Ciprian, P. Hlubina, VSB-Technical Univ. of Ostrava (Czech Republic)
- 8697 1O **Interferometric sensor based on the polarization-maintaining fibers** [8697-16]
J. Cubik, S. Kepak, J. Doricak, V. Vašínek, A. Liner, M. Papes, VSB-Technical Univ. of Ostrava (Czech Republic)
- 8697 1P **Fiber Bragg Grating vibration sensor with DFB laser diode** [8697-97]
P. Siska, M. Brozovic, J. Cubik, S. Kepak, J. Vitasek, P. Koudelka, J. Latal, V. Vasinek, VSB-Technical Univ. of Ostrava (Czech Republic)
- 8697 1Q **New method of analysis of crystallizer temperature profile using optical fiber DTS** [8697-45]
P. Koudelka, M. Pápeš, A. Liner, J. Látal, P. Šiška, V. Vašínek, VSB-Technical Univ. of Ostrava (Czech Republic)
- 8697 1R **Measurement of attenuation changes of PON elements with temperature** [8697-24]
M. Papes, P. Šiška, A. Liner, J. Látal, P. Koudelka, J. Vitasek, M. Fajkus, V. Vašínek, VSB-Technical Univ. of Ostrava (Czech Republic)
- 8697 1S **Design and simulation of a fiber to chip coupler designed on SOI platform with subwavelength grating** [8697-36]
J. Chovan, International Laser Ctr. (Slovakia); A. Kuzma, International Laser Ctr (Slovakia) and Slovak Univ. of Technology (Slovakia); F. Uherek, International Laser Ctr. (Slovakia) and Slovak Univ. of Technology (Slovakia)
- 8697 1T **Steep optical filtering for next generation optical access networks (Invited Paper)** [8697-66]
D. Korček, J. Müllerová, Univ. of Žilina (Slovakia)
- 8697 1U **Simulation and measurement of optical access network with different types of optical-fiber amplifiers** [8697-10]
J. Latal, J. Vogl, P. Koudelka, J. Vitasek, P. Siska, A. Liner, M. Papes, V. Vasinek, VSB-Technical Univ. of Ostrava (Czech Republic)
- 8697 1V **Data structure of search & compare (S&C) reservation protocol** [8697-85]
M. Markovič, J. Dubovan, M. Dado, D. Benedikovič, J. Litvík, Univ. of Žilina (Slovakia)

SESSION 5 PHOTONIC STRUCTURES

- 8697 1W **Surface plasmon structures with ferromagnetic thin films (Invited Paper)** [8697-23]
J. Pišťora, J. Vlček, M. Lesňák, P. Otipka, VSB-Technical Univ. of Ostrava (Czech Republic);
J. Sobota, Institute of Scientific Instruments of the ASCR, v.v.i. (Czech Republic)
- 8697 1X **Physics and design possibilities of plasmonic-based fishnet metamaterial structures**
[8697-30]
J. Fiala, P. Kwiecien, I. Richter, Czech Technical Univ. in Prague (Czech Republic)
- 8697 1Y **Novel types of plasmonic waveguiding structures** [8697-31]
P. Kwiecien, I. Richter, Czech Technical Univ. in Prague (Czech Republic); J. Čtyroký,
Institute of Photonics and Electronics of the ASCR, v.v.i. (Czech Republic)
- 8697 1Z **Opal-based photonic crystals: modeling and realization** [8697-32]
P. Vojtíšek, J. Proška, L. Štolcová, I. Richter, Czech Technical Univ. in Prague (Czech
Republic)
- 8697 20 **Design of an optical power splitter with integrated two-dimensional photonic crystal**
[8697-48]
A. Kuzma, Slovenska Technicka Univ. (Slovakia) and International Laser Ctr. (Slovakia);
J. Chovan, International Laser Ctr. (Slovakia); F. Uherek, Slovenska Technicka Univ.
(Slovakia) and International Laser Ctr. (Slovakia)
- 8697 21 **Modeling of InGaAs/InAlAs/InP avalanche photodiodes with undepleted absorber**
[8697-43]
J. Kaniewski, J. Jurencyk, D. Zak, J. Muszalski, Institute of Electron Technology (Poland)

SESSION 6 QUANTUM AND NONLINEAR OPTICS

- 8697 22 **Interaction of atomic systems with strong and short pulses: a new type of gauge invariant
approach** [8697-83]
M. Ślęczka, A. Bechler, Univ. of Szczecin (Poland)
- 8697 23 **Hyper Rayleigh collisional light scattering: theoretical versus ab initio hyperpolarizability
models.** [8697-109]
W. Głaz, Adam Mickiewicz Univ. in Poznań (Poland)
- 8697 24 **Reconstructing a quantum state of light by means of the degree of linear polarization**
[8697-39]
L. Michalik, A. W. Domanski, Warsaw Univ. of Technology (Poland)
- 8697 25 **Generation of squeezed states by parametric fluorescence** [8697-104]
M. Hamar, O. Haderka, V. Michálek, Joint Lab. of Optics of Palacky Univ. and Institute of
Physics of the ASCR, v.v.i. (Czech Republic) and Regional Ctr. of Advanced Technologies
and Materials (Czech Republic); J. Peřina Jr., Joint Lab. of Optics of Palacky Univ. and
Institute of Physics of the ASCR, v.v.i. (Czech Republic)
- 8697 26 **Surface effect on spontaneous parametric down-conversion** [8697-106]
A. Lukš, V. Peřinová, J. Křepelka, Palacký Univ. Olomouc (Czech Republic)

- 8697 27 **Entangled photon-pair generation in metallo-dielectric photonic bandgap structures** [8697-72]
D. Javůrek, J. Svozilík, J. Peřina Jr., Palacký Univ. Olomouc (Czech Republic)
- 8697 28 **Nonlinear quantum scissors and quantum states engineering: numerical simulations (Invited Paper)** [8697-33]
W. Leoński, V. Cao Long, Univ. of Zielona Gora (Poland)
- 8697 29 **Nonlinear coupler and qutrit-qubit entanglement** [8697-27]
A. Kowalewska-Kudłaszuk, Adam Mickiewicz Univ. in Poznań (Poland)
- 8697 2A **Spatial and spectral properties of second harmonic generation in a periodically poled KTP waveguide** [8697-113]
R. Machulka, Joint Lab. of Optics of Palacký Univ. and Institute of Physics of the ASCR, v.v.i. (Czech Republic); J. Svozilík, Joint Lab. of Optics of Palacký Univ. and Institute of Physics of the ASCR, v.v.i. (Czech Republic) and ICFO-Institut de Ciencies Fotoniques (Spain); J. Soubusta, J. Peřina Jr., Institute of Physics of the ASCR, v.v.i. (Czech Republic); O. Haderka, Joint Lab. of Optics of Palacký Univ. and Institute of Physics of the ASCR, v.v.i. (Czech Republic)
- 8697 2B **Numerical investigation of four-wave mixing in DWDM systems with high-order QAM modulation formats** [8697-53]
D. Benedikovič, J. Litvák, M. Dado, M. Markovič, J. Dubovan, Univ. of Žilina (Slovakia)
- 8697 2C **Numerical studies of the nonlinear and dispersive propagation of optical pulses using the method of lines** [8697-55]
L. Ladányi, Univ. of Žilina (Slovakia)

SESSION 7 VARIA

- 8697 2D **Solitary waves in an elastic rod: analytical solutions** [8697-25]
T. Bui Dinh, V. Cao Long, W. Leoński, Univ. of Zielona Gora (Poland)
- 8697 2E **Use of x-ray microtomography for 3D imaging of internal structures** [8697-64]
M. Hain, J. Bartl, R. Ševčík, V. Jacko, Institute of Measurement Science (Slovakia)
- 8697 2F **Surface microstructure of water Cherenkov detectors reflective liner: Tyvek** [8697-76]
M. Palatka, H. Šebestová, H. Hiklová, L. Nozka, Institute of Physics of the ASCR, v.v.i. (Czech Republic); M. Pech, D. Mandat, M. Hrabovský, P. Schovánek, Palacký Univ. Olomouc (Czech Republic)
- 8697 2G **Several examples of using contact profilometer for optical surface mapping** [8697-95]
M. Havelková, Institute of Physics of the ASCR, v.v.i. (Czech Republic); H. Hiklová, Joint Lab. of Optics of Palacký Univ. and Institute of Physics of the ASCR, v.v.i. (Czech Republic)

Author Index

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Introduction

Czech, Slovak and Polish optical scientists met for the first time in 1972 at Rusava and established a long lasting tradition of optical meetings this way. Forty years later, in 2012, they met again for the eighteenth time during the 18th Czech-Polish-Slovak Optical Conference held in Sepetná in the Beskydy Mountains from September 3–7. The conference was organized by the Joint Laboratory of Optics of Palacký University and Institute of Physics of Academy of Sciences of the Czech Republic, together with the Regional Center of Advanced Technologies and Materials of Palacký University, and provided the space for informing about new achievements and obtained experience, discussing new ideas, as well as meeting colleagues together. More than 140 participants heard interesting talks covering classical as well as nonlinear and quantum optics. Thirteen invited talks were devoted to optical manipulations with particles (P. Zemánek), femtosecond frequency combs (O. Číp), digital holographic microscopy (R. Chmelík), holographic recording (D. Senderáková), optical filtering for optical networks (J. Müllerová), design of advanced photonic structures (I. Richter), ferromagnetic thin films (J. Pištora), fiber lasers (P. Honzátko), photonic-crystal fibers (W. Urbańczyk), pulse propagation in microstructured fibers (I. Bugár), quantumness and entanglement in optical fields (A. Miranowicz), nonlinear quantum-state engineering (W. Leoński), and optics in cosmic-rays research (M. Hrabovský). They were accompanied by 57 contributed talks and more than 50 posters.

Interesting material contained both in talks and posters has been summarized in the contributions included in these proceedings. They are divided into six groups covering classical optics, manipulations with particles, particle trapping and microscopy, fibers, lasers, photonic structures, and quantum and nonlinear optics. In these contributions the reader can find the newest information about the development in the field.

We would like to express our gratitude to members of the International Scientific Committee, members of the Local Organizing Committee, session chairs as well as all the participants who contributed to the success of the conference.

Jan Peřina Jr.
Libor Nožka
Miroslav Hrabovský

PHOTO GALLERY

