

Intl. Conference “Micro- to Nano-Photonics II - ROMOPTO 2009 “

Plenary presentations

No. Crt.	Authors + Title
Pl. 1	Asher A. Friesem, Nir Davidson, “New developments in passive combining of lasers”
Pl. 2	Colin J.R. Sheppard, Wei Gong, Ke Si, Nanguang Chen, “Image formation in divided aperture and focal modulation microscopy”
Pl. 3	Johann Peter Reithmaier, “Single Photon Sources: An Overview of Recent Results”
Pl. 4	Richard M. De La Rue, “Silicon Nanophotonics Plus”
Pl. 5	J.P. Huignard, A. Brignon, “Nonlinear and adaptive optics for high brightness coherent laser beam combining”
Pl. 6	J. Sagiv, “Micro-to-Nano-Fabrication by the Bottom-up (Chemical) Approach”
Pl. 7	Sergey V. Gaponenko, “Plasmonic enhancement of spontaneous emission and scattering of light in nanostructures”

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I. Lasers and Radiation Sources

No. Crt.	Authors + Title	Presentation type
1	V. Lupei, “New laser materials and emission processes for non-conventional energy sources – nuclear fusion, solar-hydrogen cycle”	I.I.1. INVITED PRESENTATION
2	T. Dascalu and N. Pavel, “Progress in Passively Q-switched Laser”	I.I.2. INVITED PRESENTATION
3	A. Rouse, P. Zeitoun, C. Florea “Intense pulsed lasers: carried out researches and their applications in the LOA - laboratory of applied optics, a French and European leader center of the field”	I.I.3. INVITED PRESENTATION
4	Cristian Florea, Guy Hamoniaux, Mihai Ganciu, Rares Medianu “Better contrast ratio of high-intensity ultra short laser pulses generated by CPA – Applications”	I.I.4. INVITED PRESENTATION
5	R. Dabu, R. Banici, C. Blanaru, C. Fenic, L. Ionel, F. Jipa, L. Rusen, S. Simeon, A. Stratan, M. Ulmeanu, D. Ursescu, M. Zamfirescu, “TEWALAS, 20-TW femtosecond laser facility”	I.I.5 INVITED PRESENTATION
6	Nicolaie Pavel, Masaki Tsunekane, Takunori Taira, “Passively Q-switched Nd:YAG/Cr4+:YAG Laser with a Volume Bragg Grating”	I.O.1. ORAL PRESENTATION
7	D. Ursescu, L. Ionel, “Multiple pulses generation for collinear pump-probe experiments”	I.O.2 ORAL PRESENTATION
8	Traian Dascalu, Nicolaie Pavel, Nicoleta Vasile, Aurel Leca, Gabriela Salamu, Oana Sandu, “Passively Q-switched Nd:YAG/Cr4+:YAG Laser Operated at High Temperature”	I.O.3. ORAL PRESENTATION
9	D. Ursescu, L. Ionel, “Ultra-short Pulses Coherent Beam Combining”	I.O.4. ORAL PRESENTATION
10	A. Lupei, V. Lupei, A. Ikesue, C. Gheorghe, S. Hau, “Spectroscopic investigations of (Nd, Yb) in Y ₂ O ₃ transparent ceramics”	I.P.1. POSTER
11	Nicolaie Pavel, Masaki Tsunekane, Takunori Taira, “High Peak-Power Passively Q-switched Nd:YAG/Cr4+:YAG Lasers”	I.P.2. POSTER
12	L. Gheorghe, A. Achim, P. Loiseau, G. Aka, “New nonlinear Gd _{1-x} R _x Ca ₄ O(BO ₃) ₃ (R = Lu, Sc) crystals for 400 nm blue-violet light generation by type-I noncritical phase-matching frequency doubling processes”	I.P.3. POSTER
13	V. I. R. Niculescu, S. Miclos, D. Savastru, V. Babin, L. Sandru, “Magnetic Field for Asymmetric Two-Beam Free-Electron Laser”	I.P.4. POSTER
14	Nicolae Enaki, Profir Bardetski and Marina Ţurcan, “Two-photon cooperative scattering Lasing stimulated by stream of atoms”	I.P.5. POSTER
15	D. Ursescu, L. Ionel, “Gain and Ionization Dynamics in transient, collisionally excited x-ray lasers”	I.P.6. POSTER
16	I. R. Andrei, C. M. Ticos, M. Bulinski, M. L. Pascu, “Chaotic behaviour of semiconductor lasers emission when optically coupled with an external cavity”	I.P.7. POSTER
17	Radu Hristu, Stefan Stanciu, Gheorghe Stanciu, O’Dae Kwon, “Investigation on photonic quantum ring lasers using laser scanning microscopy”	I.P.8. POSTER
18	Ş. A. Amarande “Numerical modeling of thermal lens induced in a diode-pumped Nd:YVO ₄ grazing-incidence laser”	I.P.9 POSTER

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II. Lasers in Material Science

No. Crt.	Authors + Title	Presentation type
1	Ion N. Mihailescu, “Nanostructured thin coatings synthesized by advanced pulsed laser technologies for biomedical applications”	II.I.1. INVITED PRESENTATION
2	C. Ristoscu, G. Socol, I. N. Mihailescu, C. Ghica, D. Gray, E. Papadopoulou, C. Fotakis, “Fs Pulse Shaping for Morphology Control in PLD”	II.I.2. INVITED PRESENTATION
3	R. Ramponi, R. Osellame, R. Martinez Vazquez, K. C. Vishnubhatla, G. Cerullo “Fabrication of micro-optofluidic devices by means of femtosecond laser pulses”	II.I.3 INVITED PRESENTATION
4	R. Cristescu, I.N. Mihailescu, I. Stamatina, D.B. Chrisey, “Functionalized Nanostructured Thin Films of Biopolymers Synthesized by Advanced Pulsed Laser Methods for Drug Delivery and Fast Diagnostic/Medicine Applications”	II.I.4. INVITED PRESENTATION
5	V. G. Abashkin, E. A. Achimova, “Power laser application for secure glass production”	II.O.1. ORAL PRESENTATION
6	G. Socol, S. Nicolae, I. N. Mihailescu, Yu. Gnatyuk, N. Smirnova, C. Sutan, V. Malinovski, A. Stanculescu, “Photocatalytic activity of C, N doped TiO ₂ and ZrO ₂ thin films synthesized by pulsed laser deposition”	II.O.2. ORAL PRESENTATION
7	Claudiu Isarie, “Optimizing the Process of Multi Layer Melted Powder Deposition by Laser Beam”	II.O.3. ORAL PRESENTATION
8	F. Sima, E. Axente, C. Ristoscu, C. N. Mihailescu, I.N. Mihailescu, K. Anselme, L.E. Sima, S. M. Petrescu, E. Pauthe, O. Gallet, “Protein immobilization by pulsed laser techniques to modify cell/biomaterial interactions”	II.O.4. ORAL PRESENTATION
9	M. Stafe, C. Negutu, I. Vladioiu, S. S. Ciobanu, N. N. Puscas, “Spectroscopic study of the plasmas generated by nanosecond laser ablation of Er ³⁺ -doped Ti:LiNbO ₃ targets”	II.P.1. POSTER
10	Claudiu Isarie, Ilie Isarie, Corina Bokor, Sorin Ittu, Vasile Tatarciuc, Adriana Pop, Cosmin Colceriu, “About the Influence of a Divergent Nozzle Passed by a Laser Beam”	II.P.2. POSTER
11	F. Tolea, M. Stoica, M. Sofronie, M. Udrea, M. Valeanu, “Properties of The Laser Annealed FeSiB Thin Films”	II.P.3. POSTER

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III. Nanophotonics and Quantum Optics

No. Crt.	Authors + Title	Presentation type
1	Stephen G. Hickey, “Synthesis and Characterisation of Semiconductor Nanoparticles: Optically Active Centres for Addressing Across the Visible to the Near Infrared”	III.I.1. INVITED PRESENTATION
2	Dan Cojoc, “Optically driven motors: complex or simple configuration for the rotors?”	III.I.2. INVITED PRESENTATION
3	Aurelian Isar, “Time evolution of entanglement in open quantum systems”	III.I.3. INVITED PRESENTATION
4	J.J. Simon, F. Flory, L. Escoubas, P. Torchio, Yu-Jen Chen, Joao Ferreira, “Nanophotonics for efficient photovoltaic solar cells”	III.I.4. INVITED PRESENTATION
5	M. Ulmeanu, M. Zamfirescu, L. Rusen, C. Luculescu, A. Moldovan, A. Stratan, R. Dabu, “Picosecond laser assisted surface nanostructuring with optical near-field enhanced effects”	III.O.1. ORAL PRESENTATION
6	Florin Jipa, Marian Zamfirescu, Iulian Ionita, Catalin Luculescu, Razvan Dabu, “Submicrometer geometries produced by Two Photon Polymerization technique”	III.O.2. ORAL PRESENTATION
7	I. Dancus, V. I. Vlad, A. Petris, N. Gaponik, V. Lesnyak “Optical limiting and phase modulation in colloidal CdTe nanocrystals”	III.O.3. ORAL PRESENTATION
8	Dan Chicea “Using CHODIN to simulate the dynamics of coherent light scattering on nanofluids”	III.O.4. ORAL PRESENTATION
9	Iu. H. Nistor, M. S. Iovu, A. M. Andriesh, S. A. Buzurniuc, V. I. Verlan, I. P. Culeac, “New nanocomposite materials for optoelectronic applications”	III.O.5. ORAL PRESENTATION
10	S. Georgescu, A. M. Voiculescu, E. Cotoi, O. Toma, L. Gheorghe, A. Achim, C. Matei “Optical and morphologic properties of YVO ₄ :Eu phosphor”	III.P.1. POSTER
11	A. M. Voiculescu, S. Georgescu, E. Cotoi, O. Toma, C. E. Matei, O. Sandu, “The upconversion luminescence of Y ₂ O ₃ :Er:Yb and YVO ₄ :Er:Yb nanophosphors”	III.P.2. POSTER
12	C. Tiseanu, E. Cotoi, A. Voiculescu, A. Achim, V. I. Parvulescu, V. Parvulescu and S. Georgescu, “Optical properties of europium-exchanged mesoporous silicon-phosphate materials”	III.P.3. POSTER
13	M. Marcu, T. Yanagida, C. Grigoriu, T. Kawai “Study on Nucleation Seeds for Pulsed Laser Ablated Oxide Materials”	III.P.4. POSTER
14	T. Bazaru, V. I. Vlad, A. Petris, “Third order nonlinear optical properties of nano-structured Si”	III.P.5. POSTER
15	V. Damian, I. Ardeleanu, Anca Armaselu, D. Apostol, “Fourier Transform Spectra of Quantum Dots”	III.P.6. POSTER
16	M. Dima, M. Dulea, M. Petre, B. Mitrica, M. Stoica, M. Udrea, “Quantum Security in Grid Computing Applications”	III.P.7. POSTER
17	I. Bordianu, M. Olaru, C. Cotofana, B. C. Simionescu, M. Udrea “Silsesquioxane-based hybrid nanocomposite with photoluminescence properties”	III.P.8. POSTER

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IV. Non-linear and Information Optics

No. Crt.	Authors + Title	Presentation type
1	Maria L. Calvo, Pavel Cheben, Oscar Martínez-Matos, Maria Paz Hernández-Garay, Jose A. Rodrigo, “Fundamentals and advances in holographic photomaterials for optical data processing and applications”	IV.I.1. INVITED PRESENTATION
2	A. Consortini, C. Innocenti, “Wandering of laser beams: a useful tool for local atmospheric investigations”	IV.I.2. INVITED PRESENTATION
3	Alexei A. Kamshilin, Igor Sidorov, Ervin Nippolainen, “Distance measurements by using dynamic speckles”	IV.I.3. INVITED PRESENTATION
4	Mathieu Chauvet, Jassem Safioui, Kien Phan Huy, Fabrice Devaux “Beam self-trapping by pyroelectric effect”	IV.I.4. INVITED PRESENTATION
5	Herve Leblond, Boris A. Malomed, Dumitru Mihalache “Spatiotemporal vortex solitons in waveguide arrays”	IV.I.5. INVITED PRESENTATION
6	E. Fazio, A. Belardini, M. Alonzo, M. Centini, M. Chauvet, F. Deveaux and M. Scalora “Photorefractive Simulton in Lithium Niobate”	IV.I.6. INVITED PRESENTATION
7	Herve Leblond, Dumitru Mihalache “Models for few-cycles optical solitons”	IV.I.7. INVITED PRESENTATION
8	C. Cojocaru, V. Roppo, G. D’Aguanno, F. Raineri, J. Trull, R. Vilaseca, R. Raj, M. Scalora, “Phase Locked second and third harmonic localization in semiconductor cavities”	IV.I.8. INVITED PRESENTATION
9	Oleg V. Angelsky, Sergij B. Yermolenko, Claudia Yu. Zenkova, Alla O. Angelskaya, “About the polarization peculiarities of vector optical fields”	IV.I.9. INVITED PRESENTATION
10	I. P. Culeac, Iu. H. Nistor, M. S. Iovu, A. M. Andries “Speckle based fiber optic method for registration of IR radiation”	IV.I.10. INVITED PRESENTATION
11	Dumitru Mihalache “Formation and stability of light bullets: recent theoretical studies”	IV.O.1. ORAL PRESENTATION
12	M. Alonzo, F. Pettazzi, M. Bazzan, C. Sada, A. Petris, V.I. Vlad, A. Toncelli, F. Deveaux, M. Chauvet, D. Wolfersberger, E. Fazio, “Self-trapped beams in lithium niobate crystals doped with erbium”	IV.O.2. ORAL PRESENTATION
13	M. Alonzo, C. Dan, D. Wolfersberger, E. Fazio ”Coherent collisions in photorefractive InP:Fe”	IV.O.3. ORAL PRESENTATION
14	S. T. Popescu, A. Petris, V. I. Vlad, E. Fazio, “Arrays of soliton waveguides in lithium niobate for parallel coupling”	IV.O.4. ORAL PRESENTATION
15	Sofyan A. Taya, Mohammed M. Shabat, “Nonlinear Slab waveguide optical sensor using double-negativity materials”	IV.O.5. ORAL PRESENTATION
16	Mihai Mitrea, Afef Chammem, Françoise Prêteux, Adriana Vlad, “Monte-Carlo Simulations for Image Watermarking Purposes”	IV.O.6. ORAL PRESENTATION

17	Claudia Yu. Zenkova, “Optical Bistability of Layer Crystals”	IV.O.7. ORAL PRESENTATION
18	Hala J. El-Khozondar, Zeyad I.Al-Sahhar, Mohammed M. Shabat “Electromagnetic Surface Waves of a Ferrite Slab Bounded by Metamaterials”	IV.O.8. ORAL PRESENTATION
19	O.V. Angelsky, C.Yu. Zenkova, M.P. Gorsky, N.V. Gorodyns’ka, “The Electromagnetic Degree of Coherence in the Near Field”	IV.O.9. ORAL PRESENTATION
20	M. Mihailescu, E. Scarlat, A. Sobetskii “Spatial frequency and fractal complexity in one-to-triple beam holograms”	IV.O.10. ORAL PRESENTATION
21	V. Mokhun, Yu. Galushko, Yu. Viktorovskaya, “Poynting singularities, angular momentum and “anticorrelation” in the heterogeneously polarized vector field”	IV.O.11. ORAL PRESENTATION
22	M. Ciobanu, D. Savastru, M. I. Rusu, D. Tenciu, V. Savu, “Method of secure information transmission using chaos”	IV.O.12. ORAL PRESENTATION
23	V. Babin, C. Radu, “The qualitative analysis of the nonlinear equations using integral relations for solitons in photorefractive nonlinear crystals”	IV.P.1. POSTER
24	M. Raicopol, C. Dascalu, R. Atasiei, A.-L. Alexe-Ionescu “Electro-optic effect in nematic liquid crystals aligned with conductive polymer”	IV.P.2. POSTER
25	V. Damian, I. Apostol, N. Hurduc, “Interferometric patterning of the azopolymers surface”	IV.P.3. POSTER

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V. Biophotonics and Optics in Environment Research

No. Crt.	Authors + Title	Presentation type
1	M.L. Pascu, Adriana Smarandache, I.R. Andrei, V. Nastasa, C. Ticos, “Microdroplets behaviour when exposed to laser radiation field”	V.I.1. INVITED PRESENTATION
2	Traian Dascalu, Aurel Leca, Mihai Dinca, Dan Apostol, Maria Mernea, Octavian Calborean, Dan Mihailescu, “THz Time Domain System for Biomolecules Spectroscopy”	V.O.1. ORAL PRESENTATION
3	Maria Mernea, Dan Florin Mihailescu, Octavian Calborean, Aurel Leca, Dan Apostol, Mihai Dinca, Traian Dascalu, “Thz Vibrational Spectra Simulated By Molecular Dynamics”	V.O.2. ORAL PRESENTATION
4	O. V. Angelsky, <u>S. B. Yermolenko</u> , A. O. Angelskaya, O. G. Prydij, I. Gruia, M. I. Gruia “Optical pre-clinical diagnostics of the prostate tissues malignant changes”	V.O.3. ORAL PRESENTATION
5	Maria Zoran, Roxana Savastru, Dan Savastru, Marina Tautan, Sorin Miclos, Dan C. Dumitras, Teodor Julea, “Optospectral techniques for mining waste characterization in Baia Mare region, Romania”	V.O.4. ORAL PRESENTATION
6	Dan Chicea “Probing particle aggregation in aqueous suspensions by light scattering anisotropy measurements”	V.P.1. POSTER
7	Dan Chicea “Measuring very small concentrations in organic suspensions by coherent light scattering”	V.P.2. POSTER
8	S.B.Yermolenko, P.V. Ivashko, “Biospeckles’ statistics of the inhomogeneous multi-layer”	V.P.3. POSTER
9	Maria Zoran, Roxana Savastru, Dan Savastru, Marina Tautan, Sorin Miclos, “Multispectral and multitemporal satellite remote sensing imagery for Bucharest land cover dynamics assessment”	V.P.4. POSTER
10	Mihaela Antonina Calin, Rodica Mariana Ion, “The efficacy of photodynamic inactivation of the microorganisms using laser souces and methylene blue as photosensitizer”	V.P.5. POSTER
11	E. M. Carstea, G. Pavelescu, L. Cristescu “Fluorescence spectroscopy applied to the study of precipitation and its influence on river water quality”	V.P.6. POSTER
12	L. Cristescu, E. M. Carstea, G. Pavelescu, D. Savastru “The fluorescent response of water samples under different storage conditions”	V.P.7. POSTER
13	Cristian Radu, Livio Belegante, Camelia Talianu, Doina Nicolae, “Optimization of the multiwavelength Raman Lidar during EARLI09 campaign”	V.P.8. POSTER
14	M. Zoran, “Analysis of climatic and anthropogenic changes effects on spectral vegetation indices in forest areas derived from satellite data”	V.P.9. POSTER
15	Elena Nezalzova, Elena Scorbanov, Boris Gaina, Dmitry Busko, Francesca Morgera, Lisa Vaccari, Miltcho Danailov, Dan Cojoc “Study of alcoholic beverages quality by ATR infrared spectroscopy”	V.P.10. POSTER

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VI. Optoelectronics and Optical Components

No. Crt.	Authors + Title	Presentation type
1	A.M. Andriesh, I.P.Culeac, M.S.Iovu, Iu.H. Nistor “Fiber optic sensors based on optical interference and mode conversion”	VII.1 INVITED PRESENTATION
2	D. Sporea, Adelina Sporea, C. Oproiu, I. Vata, D. Negut, “Assessment of irradiation effects in multimode optical fibers”	VII.2. INVITED PRESENTATION
3	Ion Palarie, Constanta Dascalu, Gabriela Eugenia Iacobescu, “Study on Laser-Induced Ripple Structures in Dye-Doped Liquid Crystal Films in High-Intensity Regime”	VI.O.1. ORAL PRESENTATION
4	Israel Grossinger, “Recent Applications of Diffractive Elements”	VI.O.2. ORAL PRESENTATION
5	A. Popescu, D. Savastru, S. Miclos, “Refractive index anisotropy in non-crystalline As ₂ S ₃ films”	VI.O.3. ORAL PRESENTATION
6	D. Sporea, Laura Mihai, Adelina Sporea, “Comparative evaluation of two optical spectrum analyzers”	VI.O.4. ORAL PRESENTATION
7	M. Mihailescu, A. M. Preda, E. I. Scarlat, “Wavelet filters for programmable object investigation in digital holographic microscopy”	VI.O.5. ORAL PRESENTATION
8	Silvian Fara, Paul Sterian, Laurențiu Fara, Mihai Iancu, “Influence of the optical parameters of the Quantum Well Solar Cells upon solar cells conversion efficiency”	VI.O.6. ORAL PRESENTATION
9	Lazar Bogdan, Paul Sterian, “Stop band filter with monomod resonator, built inside a square symmetry 2D photonic crystal”	VI.O.7. ORAL PRESENTATION
10	Petre Cătălin Logofătu, Dan Apostol, Adrian Sima “Classical holographic experiments in digital terms”	VI.O.8. ORAL PRESENTATION
11	Dan Ursu, Georgeta Sorohan, Fanel Stegaru, Henri Courbet, Marius Gurau, “The interferential alignment of optical surfaces”	VI.O.9. ORAL PRESENTATION
12	Petronela Prepelita*, R. Medianu, A. Moldovan, N. Stefan, S. Georgescu “Effects of layer by layer deposition on the structural and optical characteristics of thin films”	VI.P.1. POSTER
13	Axente Stoica, Dan Savastru, Marina Tautan, “Method and equipments for testing of the road profiles in dynamic regime”	VI.P.2. POSTER
14	V. Teplov, L. Fauch, E. Nippolainen, A. A. Kamshilin, “Novel optoelectronic system for fast acquisition of reflectance spectra” – POSTER	VI.P.3. POSTER
15	D. Sporea, Adelina Sporea and Flavia Frumosu, “Evaluation of accelerometers’ response by laser vibrometry”	VI.P.4. POSTER
16	D. Sporea, Adelina Sporea and Simona Iconaru, “Transfer of the laser power calibration at 1 mW”	VI.P.5. POSTER
17	Florin Garoi, P. C. Logofatu, V. Damian and D. Apostol, “Interferometric vibration displacement measurement”	VI.P.6. POSTER
18	V.-F. Duma, M. F. Nicolov “Optical choppers: modulators and attenuators”	VI.P.7. POSTER

19	V.-F. Duma, G. Beches, “Manufacturing and control technology for small-diameter telescope mirrors”	VI.P.8. POSTER
20	N. N. Puscas “Modelling of the Er ³⁺ -doped Ti:LiNbO ₃ optical waveguide couplers”	VI.P.9. POSTER
21	D. Apostol, Mihaela Bojan, Iuliana Iordache, V. Damian , Ileana Apostol, “Reverse engineering for heritage conservation”	VI.P.10. POSTER
22	G. Mogaldea, M. Mogaldea, A. Leca , V. O. Ghenescu, M. Piso, D. Apostol “Preliminary experiments in THz spectroscopy”	VI.P.11. POSTER
23	M. Mogaldea, G. Mogaldea, A. Leca, V. O. Ghenescu, M. Piso, D. Apostol “THz spectral imaging for security applications”	VI.P.12. POSTER
24	Vasile Sava, Cristinel Ilie, Marius Popa, Mihaela Stoica, Mircea Udrea, “Excimer laser micro-machining optimization by using beam homogenizers based optical system”	VI.P.13. POSTER