

Day 0 : Sunday, October 5

14:00 to 19:00 : Registration

18:30 - 20:00 Welcome cocktail reception at convention center of Cassis (Oustau Calendal)

Day 1 : Monday, October 6

ROOM 1

ROOM 2

ROOM 3

08:30 Opening remarks

V. Konov and M. Sentis

09:00 - Plenary

Interaction of ultra-short laser pulse with dielectrics: modification of optical and material properties before damage

E. Gamaly

P1

Laser-Matter Interaction I

Laser Systems and Materials I

Laser Diagnostics and Spectroscopy I

09:45 - *Invited*

Ultrashort pulse induced nanogratings inside glass – fundamentals and applications

S. Nolte

P2

09:45 - *Invited*

Broadband IR Hybrid Laser System Emitting Within 2.5 – 17.5 Micron

A. Ionin

P20

09:45 - *Invited*

Carbon Nanotubes as Efficient Platform for Photonic Applications

A. Rozhin

P34

10:10 - *Invited*

Laser processing of CFRP: Fundamental energy transport mechanisms

R. Weber

P3

10:10 - *Invited*

High-aperture-rod Nd:glass laser

E. Khazanov

P21

10:10 - *Invited*

Nonlinear optics of silicon nanowire arrays: third-harmonic generation and coherent anti-stokes raman scattering

S. Zaboltnov

P35

10:35-11:00 Coffee Break

Laser-Matter Interaction II

Laser Systems and Materials II

Laser Diagnostics and Spectroscopy II

11:00 - *Invited*

Laser Nanomanufacturing

B. Chichkov

P4

11:00 - *Invited*

Ultrafast Thin-Disk Lasers with kW Average Output Power

T. Graf

P22

11:00 - *Invited*

Optical Spectroscopy of Conductive Transparent Films of Single-Wall Carbon Nanotubes Filled with Acceptor Molecules

E. Obraztsova

P36

11:25

Femtosecond-laser driven electron dynamics and resulting nanoscale surface instabilities

A. Ionin

P5

11:25 - *Invited*

Application of non-contact optical methods for study of aerosol deposition in human lungs

M. Veres

P23

11:25

Raman and Second-Harmonic Diagnostics of SiC-Based Nanostructures

L. Golovan

P37

11:40	11:50 - Invited	11:40
Formation of Micro- and Nanostructures on Solid Surfaces by ArF-laser Radiation S. Mikolutskiy P6	Progress in Nd:YAG laser pumped mid-IR optical parametric oscillators based on non-oxide nonlinear crystals V. Petrov P24	On the optical centres in Bi/Ga(Al) co-doped silica glass O. Laguta P38
11:55 - Invited		11:55
Electrofluidics fabricated by femtosecond laser direct writing J. Xu P7		Talbot Interferometer for Measurement of Effect of Gradient Magnetic Field on Temperature and Temperature Profile of Gaseous Flame S. Agarwal P39

12:20-14:00 Lunch at restaurant "Le grand Large"

Laser-Matter Interaction III	Laser Systems and Materials III	Laser Diagnostics and Spectroscopy III
14:00 - Invited	14:00 - Invited	14:00 - Invited
Femtosecond laser nanoablation of biodegradable polymer M. Terakawa P8	Diamond components for lasers and photonics V. Ralchenko P25	Femtosecond laser diagnostics of plasmonic and magnetoplasmonic A. Fedyanin P40
14:25 - Invited	14:25 - Invited	14:25 - Invited
Fundamentals of surface modification after irradiation of silicon with ultrashort laser pulses: from ripples to spikes G. Tsibidis P9	Epitaxial fluoride layers for laser and amplifiers P. Camy P26	Harmonic nanoparticles for nonlinear imaging and photo-interaction A. Rogov P41
14:50	14:50	14:50
Femtosecond Laser Tuning of Silicon Resonant Optical Devices Y. Tsui P10	Modes of resonators with axially symmetric aberrational lens V. Morozov P27	Toxic influence of heavy metal ions on living organisms investigated by different laser optical methods K.V. Fedorova P42

15:05	15:05	15:05
New High-Pressure Silicon Phases Formed in Fs-Laser Induced Confined Microexplosion A. Rode P11	Comparison of Stored Energy in Disk and Composites Yb:YAG Active Element at Cryogenic and Ambient Temperature O. Vadimova P28	Development of a laser based laboratory light scattering instrument for light scattering studies on small particulate matter A. Gogoi P43
15:20	15:20	15:20
Laser-induced synthesis of nanostructured carbon materials A. Kucherik P12	Generation of new spatial and temporal coherent states using VECSEL technology M. Seghilani P29	LIBS-study of Graphite-Containing Composite Electrochemical Coatings E. Surmenko P44
15:35	15:35	15:35
Guided Melting deformation: A novel Laser nanostructuring method P. Lorenz P13	Laser operation of Tm:Ho:YbAG crystal pumped at 1678 nm V. Mikhailov P30	Determination of the elemental composition of optical glasses by laser-induced breakdown spectroscopy C. Gerhard P45
15:50	15:50	15:50
Laser-Induced Cleavage of Graphene Structures and Synthesis of Nanostructured Layers on Surface of Carbon Materials D. Abramov P14		Spectral analysis of protoplasmic streaming velocities in Ph ysarum Polycephalum obtained by laser Doppler spectroscopy T. Avsievich P46

16:05-16:30 Coffee Break

Laser-Matter Interaction IV	Laser Systems and Materials IV
16:30 - Invited	16:30 - Invited
Laser-induced nanocluster surface structures with controlled functional properties: demonstration by jump Coulomb conductivity in tunnelly coupling semiconductor islands S. Arakelian P15	Mode-locking semiconductor disk lasers using single-walled carbon nanotube saturable absorbers V. Pasiskevicius P31
16:55	16:55 - Invited
Numerical Analysis of Promising Techniques of Nanoparticle Generation: Laser Ablation vs Spark Discharge at Atmospheric Pressure T. Itina P16	High Performance Laser Combination Additive Manufacturing Technology and it's Applications Jianhua Yao P32

17:10	17:20 - invited
A hybrid atomistic-continual simulation of ablation of metals under the action of powerful femtosecond laser pulses V. Fokin P17	Spectral-Luminescence Investigations of Raman-active Strontium Molybdate Crystals Doped with Ho³⁺ and Tm³⁺ ions L. Ivleva P33
17:25	
Crack-free fabrication of microchannels by femtosecond laser on a glass surface E. Bulushev P18	
17:40	
Numerical Investigation of Laser Interaction with Colloidal Nanoparticles T. Itina P19	

Day 2 : Tuesday, October 7

ROOM 1

ROOM 2

ROOM 3

08:30 - Plenary

Twists and more the complex shape of light

M. Padgett

P47

Laser-Matter Interaction V

Laser Beam shaping I

Laser Systems and Materials V

09:15 - Invited

Laser 3D printing for photonics, metamaterials and medicine

A. Selimis

P48

09:15 - Invited

Beam shaping for optical manipulation using conical refraction

D. McGloin

P60

09:15 - Invited

Spectroscopic and laser properties of Cr²⁺ and Fe²⁺ ions in solid solutions based on ZnSe crystal

M. Doroshenko

P71

09:40 - Invited

Lasers print and functionalize sensors

Y. Zergioti

P49

09:40 - Invited

Extreme nonlinear optics with intense shaped laser beams

P. Polynkin

P61

09:40 - Invited

Purely Optical Orientational Phase Transitions in Nematic Liquid Crystals

V. Ochkin

P72

10:05-10:30 Coffee Break

Laser-Matter Interaction VI

Laser Beam shaping II

Non linear Optics I

10:30 - Invited

Laser Induced Forward Transfer printing of conductive materials for printed electronics

E. Smits

P50

10:30 - Invited

Hollow Bessel beam as an optical guide for a stream of microscopic particles

A. Rode

P62

10:30 - Invited

Photonic Reservoir Computing

D. Brunner

P73

10:55 - Invited

Laser nanocrystallization of metals

I. Zavestovskaya

P51

10:55 - Invited

Femtosecond laser ablation with high angle Bessel and Bessel Vortex beams

F. Courvoisier

P63

10:55 - Invited

Resonant Radiation Physics in Collapsing Light Pulses

Th. Roger

P74

11:20

Laser fabrication of microelectrodes on flexible substrates by subtractive and additive laser techniques

D. Puerto

P52

11:20

Spatial transformation of optical beams using resonant diffraction structures

L. Doskolovich

P64

11:20

Nonlinear optical diagnostics of ferroelectric microstructures annealed by femtosecond laser

E. Mishina

P75

11:35 Influence of the ps laser irradiation on the electrochemical and spectroscopic properties of graphene-chitosan composite film R. Trusovas P53	11:35 Mechanism of micro-lens array formation by using four-beam interference lithography E. Stankevicius P65	11:35 Nonlinear evolution of polarization singularities in collinearly propagating light beams in isotropic gyrotropic medium I. Perezhogin P76
11:50 Increasing the efficiency of selected laser processes by assisting atmospheric pressure plasmas C. Gerhard P54	11:50 Ablation depth control of ITO thin film using a beam shaped femtosecond laser for mobile display H.Y. Kim P66	11:50 Adiabatic approx. approach to a system of nonlinear schrodinger eq. for elliptically polarized waves in an isotropic gyrotropic medium V. Makarov P77

12:05-14:00 Lunch at restaurant "Le grand Large"

14:00 - Plenary
Shaped ultrafast laser pulse for micro/nanofabrication: from fundamentals to applications
Lan Jiang
P55

Laser-Matter Interaction VII

Photoacoustics

14:45 - Invited Ion migration assisted femtosecond laser inscription of high performance active and passive waveguides for photonic devices J. Solis P56	14:45 - Invited New applicative results in CO2 laser photoacoustic spectroscopy D. Dumitras P67
15:10 - Invited Picosecond-laser bulk modification, luminescence and Raman lasing in single-crystal diamond V. Romano P57	15:10 - Invited Noninvasive detection of hematomas and patient monitoring with portable, medical grade laser optoacoustic systems R. Esenaliev P68
15:35 Large-mode-area mid-infrared guiding in ultrafast generated waveguides in chalcogenide glasses R. Stoian P58	15:35 Five Dimensional Optoacoustic Tomography Visualizes Fast Hemodynamic Changes in Whole Mouse Brain D. Razansky P69
15:50:00 - Invited Femtosecond laser micro-/nano- fabrication: new insights and its applications in optomechanics Y. Bellouard P59	15:50 Breath biomarkers can help clinicians to assess the role of oxidative attack in young population with mental disorders C. Popa-Achim P70

16:15-16:45 Coffee Break

16:45 - 18:15 Poster Session I, S1P1-S1P28

Day 3 : Wednesday, October 8

ROOM 1

08:30 - Plenary
Biophotonics – multimodal imaging for clinical applications
 J. Popp
P78

ROOM 2

ROOM 3

Biophotonics I

Laser-Matter Interaction VIII

09:15 - Invited	09:15 - Invited
Compact Diode Laser-based Systems for Biophotonics Application P. Andersen P79	Recent progress in interfering femtosecond laser processing Y. Nakata P84
09:40 - Invited	09:40 - Invited
Laser-activated chromophores and nanoparticles in minimally-invasive diagnostics and therapies R. Pini P80	Photonic crystal mirrors: a cornucopia of nanopatterned structures for the taming of light at the wavelength scale X. Letartre P85

10:05-10:30 Coffee Break

Biophotonics II

Non linear Optics II

THz sources and applications I

10:30 - Invited	10:30 - Invited	10:30 - Invited
Nanodiamond optical-spectroscopic properties and their optimization for development of theranostic applications E. Perevedentseva P81	Exciton states of the optical electrons of dielectric nanoparticles in dielectric matrix Yu. Kulchin P86	Identifying hidden substances by THz remote sensing: realistic dream? J-L. Coutaz P90
10:55 - Invited	10:55 - Invited	10:55 - Invited
Laser-stimulated Cavitation and Tissue Regeneration V. Bagratashvili P82	All-optical polarization control in fibers for Telecom applications J. Fatome P87	Time-domain probe of THz nanostructure lasers J. Darmo P91
11:20	11:20	11:20
Skin Fractional Ablation Using Multi-Micro-Beam Erbium Laser for Enhanced Particle Delivery E. Genina P83	Laser-induced Damage in Second Harmonic Generation by Periodically Poled LiTaO3 O. Louchev P89	Sub-gigawatt Terahertz Source Based on Optical Rectification and Its Non-thermal Impact on In-vivo Mouse Brain Neural Cell Li-Guo Zhu P92

11:35	11:35	11:35
		Simultaneous generation of nonlinear optical harmonics and THz radiation in air: polarization discrimination of various nonlinear contributions M. Esaulkov P93
11:50	11:50	11:50
		Terahertz time-domain spectroscopy of diabetic rat blood plasma O. Cherkasova P94

12:05-14:00 Lunch at restaurant "Le grand Large"

14:00-16:00 Boat excursion in the famous National Park of Calanques

19:00 - 23:00 Conference dinner at restaurant "La Presqu'île"

Day 4 : Thursday, October 9

ROOM 1

ROOM 2

ROOM 3

08:30 - Plenary

The role of photonics in THz technology

K.H. Park

P95

Biophotonics III

Laser-Matter Interaction IX

THz sources and applications II

09:15 - Invited

Shaped light for imaging and manipulation

J. Nylk

P96

09:15 - Invited

Self-organization and nanostructuring in SiGe layers induced by pulse laser annealing

N. Sobolev

P109

09:15 - Invited

Generation and Application of mJ-level Ultrashort Terahertz pulses

J. Hebling

P122

09:40 - Invited

Non-invasive methods of imaging the human microcirculation

M. Leahy

P97

09:40 - Invited

Laser Ignition of Engines: Status, Current Problems, Solutions

E. Wintner

P110

09:40 - Invited

Surface plasmon polariton studies in the terahertz range: A state of the art review

B. Knyazev

P123

10:05-10:30 Coffee Break

Biophotonics IV

Laser-Matter Interaction X

THz sources and applications III

10:30 - Invited

Tissue imaging and therapeutic effects at laser-induced nanoparticle luminescence, heating, and ROS-generation

V. Tuchin

P98

10:30 - Invited

Color marking by laser oxidation

V. Veiko

P111

10:30 - Invited

Nonlinear effects of strong THz fields

S. Tzortzakis

P124

10:55 - Invited

Detection of metabolic tumor status, using genetically encoded sensors and optical imaging

E. Zagaynova

P99

10:55

Nuclear-chemical processes under laser ablation of metals in aqueous mediums

S. Timashev

P112

10:55 - Invited

Extreme nonlinear optics at THz frequencies

P. Jepsen

P125

11:20

Dual Imaging System for Intraoperative Assessment of Positive Tumor Margins

C. Matei

P100

11:10

Optimization of multispectral synchrotron photoluminescence at sub-microscale to image heterogeneity of historical metals

T. Séverin-Fabiani

P113

11:20 - Invited

Interaction of Terahertz Radiation with Nanostructured Objects on a Surface

A. Shkurinov

P126

11:35 Clinical experience in fluorescence diagnostics and photodynamic therapy control using laser imaging and laser spectroscopy technologies on photosensitized bio-tissues M. Loshchenov P101	11:25	11:45 Interaction of strong THz fields with solids and liquids A. Stepanov P127
11:50 Method of combined optical spectroscopy in neurooncology: theoretical basis and clinical experience P.V. Grachev P102		

12:10-14:00 Lunch at restaurant "Le grand Large"

Biophotonics V	Ultra-High Intensity I	THz sources and applications IV
14:00 - Invited Live dynamic imaging of developmental defects in mouse models with optical coherence tomography I. Larina P103	14:00 - Invited Relativistic optics using engineered plasmas P. Monot P115	14:00 - Invited Wireless links in the THz range using UTC photodiodes J.-F. Lampin P128
14:25 - Invited Optical Biopsy for Initial Diagnosis of Cutaneous Tumours – Clinical Applications E. Borisova P104	14:25 - Invited Multiterawatt hybrid (solid/gas) femtosecond systems of visible range L. Mikheev P116	14:25 - Invited Nanometer Plasma Field Effect Transistors for Detection of Terahertz Radiation W. Knap P129
14:50 Laser modification of pore system in cartilage matrix – a novel approach for cartilage repair E. Sobol P105	14:50 Optimization of the Vulcan 20 PW chirp compensated OPCPA front end A. Wyatt P117	14:50 Terahertz plasmons in active graphene: diffusion pumping concept M. Morozov P130
15:05 Depth-Resolved Shear Wave Imaging in Tissues using Optical Coherence Elastography K. Larin P106	15:05 Millijoule, femtosecond, near infrared, ultra-high contrast front end for a Petawatt-scale diode-pumped solid state laser H. Liebetrau P118	15:05 - Invited New applications for the intense and stable Coherent Synchrotron Radiation in the THz P. Roy P132
15:20 Selective photoactivity of porphyrin- polymer complexes against Gram-negative and Gram-positive bacteria A. Solovieva P107	15:20 Quasi-flat-top pulse generation in a powerful Nd:glass laser operating in the saturation regime A. Kuzmin P119	15:30

15:35	15:35	15:45
Characterization of fresh water centric diatom frustules (Stephanodiscus hantzschii sp.): a type of biogenic photonic crystals A. Gogoi P108	High Bandwidth measurement and control of FM-AM modulation S. Montant P120	
15:50	15:50	
	Improved Nonlinear Cross-Polarized Wave Generation in Crystal of 42m Point Group Symmetry M. Kuzmina P121	

16:05-16:30 Coffee Break

16:30 - 18:00 Poster Session II

Day 5 : Friday, October 10

ROOM 1

ROOM 2

ROOM 3

08:30 - Plenary
Development of the PETAL laser facility and its applications in physics
 D. Batani
P133

Biophotonics VI

Ultra-High Intensity II

Laser-Matter Interaction XI

09:15 - Invited	09:15 - Invited	09:15 - Invited
Monitoring of PDT: What is the best for clinical practice N. Shakhova P134	Ultrafast Laser Produced Non-equilibrium Warm Dense Matter Y. Tsui P139	Femtosecond laser filamentation: a tool from micro-nano surface structure fabrication to microwave energy guiding J. Lin P145
09:40 - Invited	09:40 - Invited	09:40 - Invited
Impact of nanodiamonds on red blood cells studied by laser techniques A. Priezzhev P135	Relativistic intensity sub-5-femtosecond laser pulses and their applications L. Veisz P140	Air lasing induced by tunnel ionization: from molecular physics investigation to remote sensing application Jinping Yao P146

10:05-10:30 Coffee Break

Biophotonics VII

Ultra-High Intensity III

Laser-Matter Interaction XII

10:30 - Invited	10:30 - Invited	10:30 - Invited
Fluence compensated optoacoustic image reconstruction for quantitative imaging M. Frenz P136	High field physics at ALLS: from electron acceleration to x-ray coherent imaging J.-C. Kieffer P141	Diamond deposition in open air using laser resonant vibrational excitation of precursor molecules Y. Lu P147
10:55 - Invited	10:55 - Invited	10:55
Optical elastography – Imaging tissue stiffness at high resolution D. Sampson P137	Time-resolved XANES as an atomic-level diagnostic of non-equilibrium transition from solid to Warm Dense Matter F. Dorchies P142	Estimation of the wave process formed on the melt surface during laser cutting of steel A. Dubrov P148

11:20	11:20	11:10
Laser assessment of human and rat blood microrheology alterations in Diabetes Mellitus A. Lugovtsov P138	Femtosecond laser-induced damage of optical thin film materials, from the UV to the IR L. Gallais P143	Effect of high power CO2 and Yb:YAG laser radiation on the characteristics of TIG arc in atmospherical pressure argon and helium S. Wu P149
11:35	11:35	11:25
	Laser-induced damage thresholds of high-reflective coatings for PW lasers A. Hervy P144	High Fundamental Repetition Rate Fiber Laser Using a 45°-Tilted Fiber Grating Z. Zhang P150

11:50 -12:15 Concluding remarks

V. Konov and M. Sentis

12:15-14:00 Lunch (on your own) and departure