

## MEETING VENUE

June 19 - 24, 2022  
Rikli Balance Hotel  
Bled, Slovenia

# June 19 - 24, 2022 Bled, Slovenia



## Programme



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Time	Monday 20 <sup>th</sup> June		
8.00 - 8.30	Registration		
8.30 - 9.00	Opening (Arnold Hall)		
	Plenary session: <b>Biomedical imaging and applications</b> (Arnold Hall) – Chairman: <b>G. Paltauf</b>		
9.00	PL1- <u>Alexander Oraevsky</u> TomoWave Laboratories, Inc. Uni. of Houston, USA <b>Quantitative optoacoustic tomography</b>		
9.45	PL2- <u>Srirang Manohar</u> Uni. of Twente, Netherlands <b>Photoacoustic mammography</b>		
10.30 - 11.00	Coffee break		
	<b>7 - Biomedical Imaging and Applications</b> (Arnold 1) Chairman: <b>A. Oraevski</b>	<b>2 - Materials Research and Characterization</b> (Arnold 2) Chairman: <b>U. Zammit</b>	<b>3 - Laser Ultrasonics</b> (Zrak) Chairman: <b>Carlos Serpa</b>
11.00	Keynote lecture KN1- <u>Guenter Paltauf</u> Uni. of Graz, Austria <b>Structured illumination photoacoustic imaging using Hadamard encoding</b>	Keynote lecture KN3- <u>Mauro L. Baesso</u> State Uni. of Maringá, Brazil <b>Photoacoustic and photothermal methods towards the characterization of solar energy conversion technologies: progress to date</b>	Keynote lecture KN5- <u>Alexey V. Scherbakov</u> TU Dortmund, Germany <b>Driving coherent phonons and magnons by light</b>
11.30	Keynote lecture KN2- <u>Daniel Razansky</u> Uni. of Zurich, Switzerland <b>Triple Modality transmission-reflection optoacoustic ultrasound (TROPUS) computed tomography of small animals</b>	Keynote lecture KN4- <u>Fulvio Mercuri</u> Tor Vergata Uni. of Rome, Italy <b>Thermographic imaging for applications in cultural heritage</b>	Keynote lecture KN6- <u>Oliver Wright</u> Hokkaido Uni., Japan <b>Imaging acoustic waves in 2D confined by hook or by crook</b>
12.00 - 13.00	O1- <u>Robert Nuster</u> Uni. of Graz, Austria <b>Camera based photoacoustic imaging: sensitivity and resolution improvement</b>	O9- <u>Blaž Belec</u> Uni. of Nova Gorica, Slovenia <b>Topological insulator nanoparticles - material with prospect for photothermal applications</b>	O22- <u>Georg Watzl</u> RECENDT GmbH, Austria <b>In situ laser-ultrasonic characterization of plates through zero-group-velocity- and thickness resonances</b>
	O2- <u>M. Inês P. Mendes</u> Uni. of Coimbra, Portugal <b>Nanodroplets loaded with tetrapyrrolic dyes for photoacoustic tomography</b>	O10- <u>Samuel Raetz</u> Le Mans Uni., France <b>3D imaging of water ice under high-pressure non-hydrostatic load by time-domain Brillouin scattering</b>	O23- <u>Sylvain Mezil</u> The Langevin Inst., France <b>Zero-group-velocity Lamb mode's behaviour in the vicinity of a thickness step</b>
	O3- <u>Diogo A. Pereira</u> Uni. of Coimbra, Portugal <b>Photoacoustic delivery of photosensitizers for photodynamic therapy</b>	O11- <u>Samuel Raetz</u> Le Mans Uni., France <b>Real-time monitoring of light-induced curing of organosilicate glass low-k films by time-domain Brillouin scattering</b>	O24- <u>Guqi Yan</u> RECENDT GmbH, Austria <b>Zero-group velocity resonance spectroscopy for bulk acoustic wave resonator characterization</b>
13.00 - 14.10	Lunch		



	7 - Biomedical Imaging and Applications (Arnold 1) <i>Chairman: C. Glorieaux</i>	2 - Materials Research and Characterization (Arnold 2) <i>Chairman: D. Korte</i>	3 - Laser Ultrasonics (Zrak) <i>Chairman: O. Wright</i>
14.10	Keynote lecture KN6- <u>Nima Tabatabaei</u> <i>York Uni., Canada</i> <b>Molecular-specific imaging of tissue with photo-thermal optical coherence tomography</b>	Keynote lecture KN7- <u>Ernesto Marin-Moares</u> <i>Nat. Polytechnic Inst. of Mexico</i> <b>Front detection laser-spot active infrared thermography for thermal characterization of insulating solids</b>	Keynote lecture KN8- <u>Osamu Matsuda</u> <i>Hokkaido Uni., Japan</i> <b>Optical generation and detection of GHz longitudinal and transverse acoustic waves in transparent medium with metallic grating structure</b>
14.40 – 16.20	O4- <u>Elnaz B. Shokouhi</u> <i>Uni. of Toronto, Canada</i> <b>Multispectral pulse truncated-correlation photothermal coherence tomography with applications to dental imaging</b>	O12- <u>Alexander Melnikov</u> <i>Uni. of Toronto, Canada</i> <b>High-frequency heterodyne lock-in carrierography (HeLIC) and thermography (HeLIT) imaging of optoelectronic materials</b>	O25- <u>Clemens Grünsteidl</u> <i>RECENDT GmbH, Austria</i> <b>Laser-ultrasonic characterization of plates based on discrete points in their Rayleigh-Lamb dispersion spectra</b>
	O5- <u>Liwang Liu</u> <i>KU Leuven, Belgium</i> <b>Probing cell mechanics with photoacoustic and photothermal methods</b>	O13- <u>Andreas Mandelis</u> <i>Uni. of Toronto, Canada</i> <b>Characterization of photocarrier properties and their associated trap-state transport parameters of CdZnTe using heterodyne lock-in carrierography imaging and deep level photo-thermal spectroscopy</b>	O26- <u>Michal Kobecki</u> <i>TU Dortmund, Germany</i> <b>Giant photoelasticity of the superlattice polaritons for laser ultrasonics</b>
	O6- <u>Jure Košir</u> <i>Uni. of Ljubljana, Slovenia</i> <b>Subsurface temperature monitoring during hyperthermic laser treatment</b>	O14- <u>Diksha Singh</u> <i>Nicolaus Copernicus Uni. in Toruń, Poland</i> <b>Thermal and optical properties of mixed CdTe and ZnTe based crystals</b>	O27- <u>Bernhard Reitingner</u> <i>RECENDT GmbH, Austria</i> <b>Defect detection in additively manufactured parts by laser ultrasonic tomography</b>
	O7- <u>Boris Majaron</u> <i>Jožef Stefan Inst., Slovenia</i> <b>Hemodynamics in self-healing human bruises assessed by combined optical spectroscopy and pulsed photothermal radiometry</b>	O15- <u>Jacek Zakrzewski</u> <i>Nicolaus Copernicus Uni. in Torun, Poland</i> <b>Photothermal Spectroscopy of Cd1-xBxTe Mixed Crystals</b>	O28- <u>Martin Ryzvy</u> <i>RECENDT GmbH, Austria</i> <b>Measurement of the acoustic loss at GHz frequencies using laser-excited plate resonances</b>
	O8- <u>Margaux Petav</u> <i>Paris-Saclay Uni., France</i> <b>Breast cancer and biomineralization: new insights by means of infrared nanospectroscopy</b>	O16- <u>Karol Strzałkowski</u> <i>Nicolaus Copernicus Uni. in Torun, Poland</i> <b>Simultaneous thermal and optical characterization of semiconductor materials exhibiting high optical absorption by photopyroelectric spectroscopy</b>	O29- <u>S. Izak Ghasemian</u> <i>Inst. of Physics, Germany</i> <b>Optical and ultrasound imaging of shear wave generated by laser induced cavitation bubbles</b>
	16.20 – 16.50	<i>Coffee break</i>	



	8 - Novel Methodologies, Instrumentation, and Applications (Arnold 1) <i>Chairman: V. Spagnolo</i>	2 - Materials Research and Characterization (Arnold 2) <i>Chairman: G. Lukaszewicz</i>	3 - Laser Ultrasonics (Zrak) <i>Chairman: R. Petkovšek</i>
16.50	Keynote lecture KN9- <u>Michael Kolios</u> <i>Ryerson Uni., Canada</i> <b>On the detection of aerosolized submicron particles using non-contact photoacoustics</b>	Keynote lecture KN10- <u>Tomaz Catunda</u> <i>Uni. of Sao Paulo, Brazil</i> <b>Refractive index changes in solid state laser materials</b>	O30- <u>Carlos Serpa</u> <i>Uni. of Coimbra, Portugal</i> <b>Broadband high-frequency laser ultrasound generation and applications towards biological membranes</b>
17.20 - 19.00	O36- <u>Mioljub Nešić</u> <i>Uni. of Belgrade, Serbia</i> <b>Pulse gas-microphone photoacoustic signal measured by minimum volume cell set-up including thermal relaxations: Theoretical consideration</b>	O17- <u>Vladislav R. Khabibullin</u> <i>Lomonosov Moscow State Uni., Russia</i> <b>Correctness of assessment of thermophysical properties of solvents by dual-beam thermal-lens spectrometry</b>	O31- <u>Jude Deschamps</u> <i>Massachusetts Inst. of Technology, USA</i> <b>Reaching the shock limit via synchronous laser ultrasonics</b>
	O37- <u>Porfirio E. Martínez-Muñoz</u> <i>Nat. Autonomous Uni. of Mexico</i> <b>Development of a differential photoacoustic system for the determination of the effective permeability coefficient</b>	O18- <u>Evgeny Vyrko</u> <i>Lomonosov Moscow State Uni., Russia</i> <b>Combining micro- and macroscopic approaches in a model of a thermal lens experiment in disperse media spectrometry</b>	O32- <u>Daniele Vella</u> <i>Uni. of Ljubljana, Slovenia</i> <b>Ultrasonic emitter based on photoacoustic polymer graphene nanocomposites</b>
	O38- <u>Zoltán J. Bozóki</u> <i>Uni. of Szeged, Hungary</i> <b>Open photoacoustic cell for concentration measurements at high flow rates</b>	O19- <u>Anna Kaźmierczak-Bałata</u> <i>Silesian Uni. of Technology, Poland</i> <b>Heat transport in polycrystalline oxide thin films</b>	O33- <u>Darja Horvat</u> <i>Uni. of Ljubljana, Slovenia</i> <b>Laser-induced shock wave expanded nanobubbles in spherical geometry</b>
	O39- <u>Panna Vég</u> <i>Uni. of Szeged, Hungary</i> <b>Verification of the basic equation of gas phase photoacoustics</b>	O20- <u>Dorota Korte</u> <i>Uni. of Nova Gorica, Slovenia</i> <b>Porosity measurements in cellulose/chitosan biopolymers with added sporopollenin</b>	O34- <u>Jaka Mur</u> <i>Uni. of Ljubljana, Slovenia</i> <b>Microscale shockwave characterization following dual threshold laser-induced breakdown</b>
	O40- <u>János M. Fekete</u> <i>Uni. of Szeged, Hungary</i> <b>Determination of cell constant via combined photoacoustic and direct absorption measurement</b>	O21- <u>Mioljub Nešić</u> <i>Uni. of Belgrade, Serbia</i> <b>Thermoelastic and optical properties of PLLA estimated by photoacoustic measurements</b>	O35- <u>Žiga Lokar</u> <i>Uni. of Ljubljana, Slovenia</i> <b>Ultrafast measurement of laser induced shockwave</b>



Time	Tuesday 21 <sup>st</sup> June		
8.30	Plenary session <b>Thermophysical properties</b> <b>Materials research and characterization</b> (Arnold Hall) - Chairman: <b>M. Kolios</b>		
	PL3- <b>Christ Glorieux</b> KU Leuven, Belgium <b>Photothermal and photoacoustic exploration of relaxation in supercooled liquids</b>		
9.15	Plenary session <b>Materials research and characterization</b> <b>Novel methodologies, instrumentation and applications</b> (Arnold Hall) - Chairman:		
	PL4- <b>Ji-Xin Cheng</b> Boston Uni., USA <b>Mid-infrared photothermal microscopy</b>		
10.00 - 10.30	Coffee break		
10.30 - 11.30	<b>10 - Low-Dimensional Systems, Nanoscale Phenomena and Nanostructures</b> (Zrak) Chairman: <b>F. Banfi</b>	<b>1 - Thermophysical Properties</b> (Arnold 1) Chairman: <b>J. Zakrzewski</b>	<b>5/9 - Infrared Thermography, Nondestructive Evaluation</b> (Arnold 2) Chairman: <b>B. Majaron</b>
10.30	Keynote lecture KN12- <b>Roberto Li Voti</b> Sapienza Uni. of Rome, Italy <b>Photothermal characterization at a nanoscopic scale</b>	Keynote lecture KN14- <b>Alberto Oleaga</b> Uni. of the Basque Country, Spain <b>Thermal properties and critical behavior in rare-earth based magnetocaloric materials</b>	Keynote lecture KN16- <b>Margaux Bouzin</b> Uni. of Milano-Bicocca, Italy <b>Imaging thermal properties by super-resolution far-infrared thermography</b>
11.00	Keynote lecture KN13- <b>Aleks Fainstein</b> Bariloche Atomic Centre, Argentina <b>Optomechanical strong coupling in lattices of light fluids and sound</b>	Keynote lecture KN15- <b>Juan Jose Alvarado Gil</b> CINVESTAV Mérida, Mexico <b>Thermal characterization of composites and layered systems: Challenges and opportunities</b>	Keynote lecture KN17- <b>Arantza Mendioroz</b> Uni. of the Basque Country, Spain <b>Nondestructive control of materials in motion using laser spot thermography</b>
11.30 - 12.30	O41- <b>Michele Diego</b> Uni. of Lyon, France <b>Ultrafast excitation of water-immersed Carbon Nanotubes: thermophone vs mechanophone effect</b>	O48- <b>Ameneh Mikaeeli</b> Nicolaus Copernicus Uni. in Torun, Poland <b>Advantages and disadvantages of photothermal measurement methods estimating thermal transport properties of multilayered samples.</b>	O55- <b>Nelson W. Pech-May</b> Fed. Inst. for Materials Research and Testing Berlin, Germany <b>Automatic inspection of surface breaking cracks using laser scanning thermography</b>
	O42- <b>Changxiu Li</b> Le Mans Uni., France <b>Laser-induced coherent GHz surface acoustic waves in cleaved superlattices</b>	O49- <b>Qi Wei</b> KU Leuven, Belgium <b>Photothermal study of structural relaxation in supercooled glycerol by fast fluorescence thermometry</b>	O56- <b>Mathias Ziegler</b> Fed. Inst. for Materials Research and Testing Berlin, Germany <b>New options for finding defects on and below the surface using structured laser thermography</b>
	O43- <b>Fernando Cervantes-Alvarez</b> CINVESTAV Mérida, Mexico <b>Photoacoustic monitoring of the process of alignment in liquid dispersions of magnetized carbon nanotubes</b>	O50 - <b>Stefano Paoloni</b> Tor Vergata Uni. of Rome, Italy <b>Photopyroelectric investigation of the trans-cis isomerization effect on phase transitions of a liquid crystalline azobenzene</b>	O57- <b>Simon J. Altenburg</b> Fed. Inst. for Materials Research and Testing Berlin, Germany <b>Towards hyperspectral <i>in-situ</i> temperature measurement in metal additive manufacturing</b>

12.30 - 13.40	<i>Lunch</i>		
13.40	<i>Group photo</i>		
14.00	<b>10 - Low-Dimensional Systems, Nanoscale Phenomena and Nanostructures (Zrak)</b> <i>Chairman: S. Volz</i>	<b>1 - Thermophysical Properties (Arnold 1)</b> <i>Chairman: Alvarado Gill</i>	<b>5/9 - Infrared Thermography, Nondestructive Evaluation (Arnold 2)</b> <i>Chairman: A. Mendioroz</i>
	<i>Keynote lecture</i> KN18- <u>Jose Ordonez-Miranda</u> <i>Uni. of Tokyo, Japan</i> <b>Nanoscale heat transport driven by surface electromagnetic waves</b>	<i>Keynote lecture</i> KN19- <u>Nelson Astrath</u> <i>State Uni. of Maringa, Brazil</i> <b>Using the photomechanical and photo-induced lensing effects to probe the fundamentals of electromagnetic forces in dielectric liquids</b>	<i>Keynote lecture</i> KN20- <u>Peter Burgholzer</u> <i>RECENDT GmbH, Austria</i> <b>Detectability of noisy signals for photothermal and photoacoustic reconstruction</b>
14.30 - 15.50	O44- <u>Mohanachandran S. Swapna</u> <i>Uni. of Nova Gorica, Slovenia</i> <b>Unwrapping the soot assisted intra-pigment energy transfer in leaves through thermal lens technique: time series analysis in nanobiophotonics</b>	O51- <u>Fernando Cervantes-Alvarez</u> <i>CINVESTAV Mérida, Mexico</i> <b>Photothermal characterization of obsidian</b>	O58- <u>Florian Dreier</u> <i>Uni. of Innsbruck, Austria</i> <b>Photoacoustic reconstruction formulas exploiting known location of 2D initial pressure</b>
	O45 – <u>Rosa M. Quispe-Siccha</u> <i>Nat. Autonomous Uni. of Mexico</i> <b>Elastic properties effect of nanoparticles-functionalized alpaca fibers by the photoacoustic method</b>	O52- <u>Paolo Bison</u> <i>CNR-ITC, Italy</i> <i>Cancelled</i> <b>Pulsed thermography in the assessment of inplane thermal diffusivity: aperiodic, periodic and random patterns</b>	O59- <u>Wolfgang Haderer</u> <i>RECENDT GmbH, Austria</i> <b>Spatio-temporal imaging of the thermally hardened surface layer in steel parts</b>
	O46- <u>Mario E. Rodríguez-García</u> <i>Nat. Autonomous Uni. of Mexico</i> <b>Design, fabrication and characterization of Bragg reflectors based on porous silicon monitored by photoacoustics</b>	O53- <u>Harol D. Martínez-Hernández</u> <i>Nat. Autonomous Uni. of Mexico</i> <b>Structural, thermal, and electrical transport correlations in p-type Si as a function of carrier concentration: the effect of intrinsic and extrinsic defects</b>	O60- <u>Sandeep Sathyan</u> <i>Le Mans Uni., France</i> <b>Restriction on the laser wavelengths for imaging of metal/epoxy interfaces by time-domain Brillouin scattering</b>
	O47- <u>Maria V. Tareeva</u> <i>Lebedev Physical Inst., Russia</i> <b>Multiple stokes and anti-stokes components generation by biharmonic pumping via stimulated low-frequency raman scattering</b>	O54- <u>Mioljub Nešić</u> <i>Uni. of Belgrade, Serbia</i> <b>Characterization of TiO<sub>2</sub> thin film deposited on silicon membranes using neural networks</b>	O61- <u>Peng Song</u> <i>Harbin Inst. of Technology, China</i> <b>Application of all-optical and nondestructive laser ultrasonic in imaging of CFRP subsurface defects</b>
15.50 - 16.20	<i>Coffee break</i>		
16.20	<i>Memorial session dedicated to Joan Power and Dane Bicanic (Arnold Hall) – Chairman: A. Mandelis, M. Franko</i>		
17.00 – 18.00	<i>Commercial presentations (Arnold Hall)</i>		
18.00 – 19.30	<i>Poster session (Sonce)</i>		



Time	Wednesday 22 <sup>nd</sup> June		
8.30	Plenary session <i>Ultrafast phenomena and spectroscopy</i> (Arnold Hall) - Chairman: <b>J. Ordonez Miranda</b>		
	PL5- <b>Daniel Lanzillotti Kimura</b> Paris-Saclay Uni., France <b>Novel nanophononic structures and devices</b>		
9.15	Plenary session <i>Low-dimensional systems, nanoscale phenomena and nanostructures</i> (Arnold Hall) - Chairman:		
	PL6- <b>Sebastian Volz</b> Uni. of Tokyo, Japan <b>Surface phonon-polaritons conduction and radiation</b>		
10.00 - 10.30	Coffee break		
	<b>6 - Ultrafast Phenomena and Spectroscopy</b> (Zrak) Chairman: <b>A. V. Scherbakov</b>	<b>11 - Environmental, Agricultural, and Food Applications</b> (Arnold 2) Chairman: <b>I. White</b>	<b>8 - Novel Methodologies, Instrumentation, and Applications</b> (Arnold 1) Chairman: <b>G. Ramer</b>
10.30	Keynote lecture KN21- <b>Samuel Raetz</b> Uni. of Maine, Le Mans, France <b>Time-domain Brillouin scattering for probe light and acoustic beams propagating at an arbitrary relative angle</b>	Keynote lecture KN22- <b>Mikhail Proskurnin</b> Lomonosov Moscow State Uni., Russia <b>FTIR photoacoustic spectroscopy of soils: Comparison of FTIR modalities for soil fractions of various agrogenesis</b>	Keynote lecture KN23- <b>Filippo Bencivenga</b> Elettra-Sincrotrone, Italy <b>Nanoscale structural dynamics by extreme ultraviolet transient gratings</b>
11.00 - 12.20	O62- <b>Francesco Banfi</b> Uni. of Lyon, France <b>Ultrafast photoacoustic assessment of mechanical properties in InAs nanowires</b>	O66- <b>J�r�mie Mathurin</b> Paris-Saclay Uni., France <b>AFM-IR study of carbonaceous chondrites and Ryugu samples returned by the Hayabusa 2 space mission</b>	O70- <b>Nima Tabatabaei</b> York Uni., Canada <b>Clinical validation of handheld thermo-phonic device for rapid detection and quantification of anti-SARS-CoV-2 antibodies</b>
	O63- <b>Felix Noll</b> RECENDT GmbH, Austria <b>Detection of coherent acoustic phonons in thin gold films by surface plasmon resonance</b>	O67- <b>Szabolcs Hodovny</b> Uni. of Szeged, Hungary <b>Soot selective size distribution measurement. A demonstrative study</b>	O71- <b>Craig Prater</b> Photothermal Spectroscopy Corp., USA <b>Optical photothermal infrared spectroscopy</b>
	O64- <b>Mike Hettich</b> RECENDT GmbH, Austria <b>Temperature dependent elastic properties and glass transition of nanometric PMMA films by picosecond ultrasonics</b>	O68- <b>Marilena Giglio</b> Polytechnic Uni. of Bari, Italy <b>Air pollutants detection with QEPAS sensors</b>	O72- <b>Anna D. Kudryavtseva</b> Lebedev Physical Inst., Russia <b>Photon-phonon interaction in submicron particles systems: new method of Q-switching</b>
	O65- <b>Jose A. Aguilar-Jimenez</b> CINVESTAV Mrida, Mexico <b>Development of models for the study of heat transport in ultra-thin layers by transient grating spectroscopy</b>	O69- <b>Hanna Budasheva</b> Uni. of Nova Gorica, Slovenia <b>Optimization of PTD system for characterization of transparent and semi-transparent samples</b>	Keynote lecture KN24- <b>Jerzy Bodzenta</b> Silesian Uni. of Technology, Poland <b>Scanning Thermal Microscopy – current applications and perspectives</b>





12.20 - 13.30	<i>Lunch</i>
13.30	<p>Senior scientist IPPA 2022 award  <u>Mauro L. Baesso</u>  <i>State Uni. of Maringá, Brazil</i>  <b>Photoacoustic and photothermal: progress to date towards fostering multidisciplinary</b>  <i>(Arnold Hall) – Chairman: A. Mandelis</i></p>
14.05	<p>Young scientist IPPA 2022 award  <u>Gustavo V. B. Lukasiewicz</u>  <i>Federal Uni. of Technology – Parana, Brazil</i>  <b>Photothermal lens and photothermal mirror techniques: effects and applications</b>  <i>(Arnold Hall)</i></p>
14.40	<p>James Smith Award  <u>Christ Glorieux</u>  <i>KU Leuven, Belgium</i>  <b>Validated and potential mechanisms for photothermal actuators, modulators and transducers</b>  <i>(Arnold Hall)</i></p>
15.15	<p>James Smith Award  <u>Oliver Wright</u>  <i>Hokkaido Uni., Japan</i>  <b>Optical tracking of ultrafast surface vibrations</b>  <i>(Arnold Hall)</i></p>
15.50 – 16.15	<i>Coffee break</i>
16.15	<p>Special Plenary Session  <u>Andreas Mandelis</u>  <i>Uni. of Toronto, Canada</i>  <b>Modalities of photothermal coherence tomography for enhanced three-dimensional imaging contrast, resolution and quantitative depth profilometry</b>  <i>(Arnold Hall) – Chairman: R. Li Voti</i></p>
17.00	<p><b>Presentations of candidates for organization of ICPPP22</b>  <i>(Arnold Hall) - Chairman: M. Franko</i></p>
18.00 – 19.30	<p><b>Poster Session</b>  <i>(Sonce)</i></p>



Time	Thursday 23 <sup>rd</sup> June	
8.30 - 10.00	Plenary session <b>Novel methodologies, instrumentation, and applications</b> <b>Materials research and characterization</b> (Arnold hall) - Chairman: <b>G. Močnik</b>	
8.30	PL7- <u>Vincenzo Spagnolo</u> Polytechnic Uni. of Bari, Italy <b>Quartz tuning fork based photoacoustic spectroscopy and sensing</b>	
9.15	PL8- <u>Bernhard Lendl</u> Technical Uni. of Vienna, Austria <b>Mid-IR laser based photothermal sensing of gases, liquids and imaging</b>	
10.00 - 10.45	Plenary session <b>Analytical chemistry and photochemistry</b> (Arnold Hall) - Chairman: <b>M. Franko</b>	
	PL9- <u>Masahide Terazima</u> Kyoto Uni., Japan <b>Investigation of site-related photochemical processes by photothermal grating</b>	
10.45 - 11.15	Coffee Break	
	<b>5/9 - Infrared Thermography, Nondestructive Evaluation</b> (Arnold 2) Chairman: <b>P. Burgholzer</b>	<b>12 - Analytical Chemistry and Photochemistry</b> (Arnold 1) Chairman: <b>B. Lendl</b>
11.15	Keynote lecture KN25- <u>Michal Pawlak</u> Nicolaus Copernicus Uni. in Toruń, Poland <b>Spectrally resolved modulated infrared radiometry</b>	Keynote lecture KN26- <u>Georg Ramer</u> TU Wien, Austria <b>Photothermal spectroscopy for nanoscale chemical imaging</b>
11.45 - 12.55	O73- <u>Alexander Melnikov</u> Uni. of Toronto, Canada <b>Lock-in thermography of compressed metal powder metallurgy in pre-sintered state as flaw preventive non-destructive evaluation modality</b>	O75- <u>Griša Močnik</u> Uni. of Nova Gorica, Slovenia <b>Calibrating filter photometers with direct measurements of aerosol absorption using a dual-wavelength photo-thermal interferometer</b>
	O74- <u>Boris Majaron</u> Uni. of Ljubljana, Slovenia <b>Three-dimensional reconstruction of subsurface absorbing structures in human skin from photothermal radiometric records</b>	O76- <u>Emily Awuor Ouma</u> Uni. of Szeged, Hungary <b>Selective measurement of ammonia isotopes by using photoacoustic spectroscopy</b>
	Keynote lecture KN27- <u>Perry Xiao</u> London South Bank University, UK <b>Photothermal radiometry data analysis with machine learning</b>	O77- <u>Angelo Sampaolo</u> Polytechnic Uni. of Bari, Italy <b>H<sub>2</sub>S detection in complex gas matrices</b>
12.55 - 14.30	Lunch	
15.00 – 19.00	Excursion	
20.00	Conference dinner	



## List of posters

### 1. Thermophysical Properties

P1	<u>Abdul Rahman</u> <i>Quaid-i Azam Uni., Pakistan</i>	<b>A modified mode-mismatched thermal lens spectrometry Z-scan mode: An exact approach</b>
P2	<u>Alvarado Noguez</u> <i>Nat. Polytechnic Inst. of Mexico</i>	<b>Optical and Thermal Characterization of Fe<sub>3</sub>O<sub>4</sub> Nanoparticles Covered with Turmeric Extract</b>
P3	<u>Usiel Omar Garcia Vidal</u> <i>Nat. Polytechnic Inst. of Mexico</i>	<b>Thermal study of porous and compact SiO<sub>2</sub> nanoparticle nanoliquids by TWRC technique</b>
P4	<u>Aldrin David Vargas Vargas</u> <i>Polytechnic Inst. of Mexico</i>	<b>Thermal characterization of hydrocarbon-water interfaces</b>
P5	<u>Mioljub Nešić</u> <i>University of Belgrade, Serbia</i>	<b>Characterization of TiO<sub>2</sub> thin film deposited on Silicon membrane using neural networks</b>
P6	<u>Mioljub Nešić</u> <i>Uni. of Belgrade, Serbia</i>	<b>Estimation of heat propagation speed in the thin graphen-oxide foil by photoacoustic</b>
P7	<u>Yide Zhang</u> <i>TU Wien, Austria</i>	<b>Towards a point spread function for nanoscale chemical imaging</b>
P8	<u>Fernando Cervantes Alvarez</u> <i>Nat. Polytechnic Inst. of Mexico</i>	<b>Study of thermal and optical properties of composites made of silver iodomercurate (Ag<sub>2</sub>HgI<sub>4</sub>) in a polymeric matrix</b>
P9	<u>Juan José Alvarado-Gil</u> <i>CINVESTAV Mérida, Mexico</i>	<b>Thermal lens spectroscopy: an analytical model for a pulsed-laser</b>
P10	<u>Juan José Alvarado-Gil</u> <i>CINVESTAV Mérida, Mexico</i>	<b>Influence of the VO<sub>2</sub> metal-insulator transition on the thermoelectric properties of composites based on a Bi<sub>0.5</sub>Sb<sub>1.5</sub>Te<sub>3</sub> matrix</b>
P11	<u>Jose Luis. M. Montes de Oca</u> <i>CINVESTAV Mérida, Mexico</i>	<b>Effect of mesoporous cerium oxide nanofluids on the thermal conductivity</b>
P12	<u>Fernando Cervantes-Alvarez</u> <i>Michoacan Uni. of Saint Nicholas of Hidalgo, Mexico</i>	<b>Thermal characterization of natural clay using photothermal radiometry technique for thermal insulation applications</b>
P13	<u>Juan José Alvarado-Gil</u> <i>CINVESTAV Mérida, Mexico</i>	<b>Thermal characterization of emulsions stabilized by Sodium Dodecyl Sulfate</b>
P14	<u>Ameneh Mikaeeli</u> <i>Nicolaus Copernicus Uni. in Torun, Poland</i>	<b>UV light-induced thermal and optical properties of functionalized polymers with strong push-pull azo chromophores in side chain</b>
P15	<u>Alexander Melnikov</u> <i>Uni. of Toronto, Canada</i>	<b>Simultaneous Reconstruction of Density and Thermal Conductivity Depth Profiles in Sintered Metal Powder Compacts using a Novel Inverse Thermal-Wave Method</b>



## 2. Materials Research and Characterization

P16	<u>Usiel Omar García Vidal</u> <i>Nat. Polytechnic Inst. of Mexico</i>	<b>Photothermal Techniques for 3D printing polymer characterization</b>
P17	<u>Jose Arturo Aguilar Jimenez</u> <i>CINVESTAV Mérida, Mexico</i>	<b>Photothermal characterization of polyester composites loaded with parallelly arranged graphite rods</b>
P18	<u>Sandeep Sathyan</u> <i>Le Mans Uni., France</i>	<b>Evaluation of optical and acoustical properties of Ba<sub>1-x</sub>Sr<sub>x</sub>TiO<sub>3</sub> material library by a multi-technique approach including picosecond laser ultrasonics</b>
P19	<u>Fernando Cervantes-Alvarez</u> <i>CINVESTAV Mérida, Mexico</i>	<b>Thermal, mechanical and optical characterization of calcium caseinate biopolymers with borax as crosslinking agent</b>
P20	<u>Ankur Chatterjee</u> <i>Nicolaus Copernicus Uni. in Torun, Poland</i>	<b>Double and multiple pump pulse time-domain thermoreflectance measurements</b>
P21	<u>Roberto Li Voti</u> <i>Sapienza Uni. of Rome, Italy</i>	<b>Infrared emissivity of vanadium dioxide thin films coated on cotton fabrics</b>
P22	<u>Hanna Budasheva</u> <i>Uni. of Nova Gorica, Slovenia</i>	<b>Characterization of multilayered drug delivery systems for orthopedic implants by beam deflection spectrometry</b>
P23	<u>Dorota Korte</u> <i>Uni. of Nova Gorica, Slovenia</i>	<b>Analysis of SiO<sub>2</sub> and BaSO<sub>4</sub> leachates from dental composites by thermal lens spectrometry</b>
P24	<u>Khayala Agharahimli</u> <i>Sapienza Uni. of Rome, Italy</i>	<b>Infrared Emissivity of microcapsules of organic phase change materials dispersed into smart wearable textiles</b>

## 3. Laser Ultrasonics

P25	<u>Saurer Markus</u> <i>Uni. of Graz, Austria</i>	<b>Detection of defects in multilayer solids with laser-induced surface acoustic waves</b>
P26	<u>Jaka Mur</u> <i>Uni. of Ljubljana, Slovenia</i>	<b>Laser-induced shock waves and cavitation bubbles in different water metrices</b>
P27	<u>Yang Zhang</u> <i>Nanjing Uni. of Science and Technology, China</i>	<b>Adaptive polarized photoacoustic computed tomography</b>

## 5. Infrared Thermography

P28	<u>Julien Lecomagnon</u> <i>Fed. Inst. for Materials Research and Testing Berlin, Germany</i>	<b>Thermographic super resolution reconstruction using 2D pseudo-random pattern illumination</b>
P29	<u>Noemi Orazi</u> <i>Tor Vergata Uni. of Rome, Italy</i>	<b>3D Browsing of historical books by means of Active Infrared Thermography</b>
P30	<u>Ugo Zammit</u> <i>Tor Vergata Uni. of Rome, Italy</i>	<b>Infrared Thermography study of historical bronze composition effects on the transport properties</b>
P31	<u>Roberto Li Voti</u> <i>Sapienza Uni. of Rome, Italy</i>	<b>Thermal Anisotropy of Polyethersulfone Woven Textiles by Infrared Thermography</b>

## 6. Ultrafast Phenomena and Spectroscopy

P32	<u>Juan José Alvarado-Gil</u> <i>CINVESTAV Mérida, Mexico</i>	<b>Thermal characterization of polymeric thin films by photoacoustic spectroscopy</b>
P33	<u>Justinas Pupeikis</u> <i>ETH Zurich, Switzerland</i>	<b>Efficient picosecond ultrasonics with a common-cavity dual-comb laser</b>



## 7. Biomedical Imaging and Applications

P34	<u>Lilia Ivonne Olvera Cano</u> <i>Nat. Polytechnic Inst. of Mexico</i>	Measurement of glycated haemoglobin through photoacoustic spectroscopy, a non- destructive assessment
P35	<u>Neža Golmajer Zima</u> <i>Jožef Stefan Inst., Slovenia</i>	In vivo monitoring of laser tattoo removal using pulsed photothermal radiometry and diffuse reflectance spectroscopy
P36	<u>Andreas Mandelis</u> <i>Uni. of Toronto, Canada</i>	Long-Wave and Mid-Wave Photothermal Coherence Tomography Imaging of Human Teeth
P37	<u>Andreas Mandelis</u> <i>Uni. of Toronto, Canada</i>	Optothermal and photoacoustic characterization of protein corona and blood using plasmonic nanoparticles: pharmaceutical aspects.
P69	<u>Iain R. White</u> <i>Uni. of Nova Gorica, Slovenia</i>	Sensitive detection of free bilirubin and biliverdin to explore their role as protective factors against the development of chronic degenerative diseases

## 8. Novel Methodologies, Instrumentation, and Applications

P38	<u>Mladena Lukic</u> <i>Uni. of Niš, Serbia</i>	Machine learning based determination of photoacoustic signal parameters for different gas mixtures
P39	<u>Miroslava Jordovic Pavlovic</u> <i>Metropolitan Uni. (Belgrade), Serbia</i>	The reduction of neural network input vector for efficient optimization of photoacoustic calibration
P40	<u>Marcus Wolff</u> <i>Hamburg Uni. of Applied Sciences, Germany</i>	Finding the optimal TDLS wavelength
P41	<u>Marcus Wolff</u> <i>Hamburg Uni. of Applied Sciences, Germany</i>	New Voltage Control Technique for Mach-Zehnder Modulators
P42	<u>Elisabeth Holub</u> <i>TU Wien, Austria</i>	Mid-Infrared Photothermal Spectroscopy in Aqueous Media
P43	<u>Ufuk Yilmaz</u> <i>TU Wien, Austria</i>	Novel approach for bottom-illuminated photothermal nanoscale chemical imaging with a flat silicon sample carrier
P44	<u>Le Zhang</u> <i>Xidian Uni., China</i>	Dual-resonant mode T-type cell-based Photoacoustic Spectroscopy for Simultaneous Trace gas detection
P45	<u>Xueshi Zhang</u> <i>Xidian Uni., China</i>	Ppb-Level Methane Sensor Using a Multi-Pass Mode Photoacoustic Spectroscopy Technology
P46	<u>Daniel Maitethia Memeu</u> <i>Meru Uni. of Science and Technology, Kenya</i>	Analytical Method for Estimating Chemical Composition of Bio-Samples under Photo-thermal Investigation
P47	<u>Lixian Liu</u> <i>Xidian Uni., China</i>	Windowless Photoacoustic Cell for Trace Gas Detection
P48	<u>Xukun Yin</u> <i>Xidian Uni., China</i>	Photoacoustic SO <sub>2</sub> gas sensor in SF <sub>6</sub> buffer gas employing a 266 nm LED
P49	<u>Gianpaolo Bei</u> <i>Sapienza Uni. of Rome, Italy</i>	Doppler effect for thermal waves: theory and applications
P50	<u>Mingqiang Liu</u> <i>Southwest Uni. of Science and Technology, China</i>	Twin-focus thermal lens microscopy: A theoretical description
P51	<u>Andreas Mandelis</u> <i>Uni. of Toronto, Canada</i>	Three-Dimensional Truncated Correlation Photothermal Coherence Tomography Image Optimization using Linear Iso Phase Imaging
P68	<u>Todorovic M. Dragan</u> <i>Uni. of Belgrade., Serbia</i>	Photoacoustics in the Study of Micromechanical Structures



### 9. Non-Destructive Evaluation

P52	<u>Augustin Salazar</u> <i>Uni. of the Basque Country, Spain</i>	Measuring the depth and width of delaminations by photothermal radiometry
P53	<u>Hui Zhang</u> <i>Southeast Uni., China</i>	The feature detection of GFRP subsurface defects using fast randomized sparse principal component thermography
P54	<u>Cuiling Peng</u> <i>Xidian Uni., China</i>	Noncontact measurement of sub-micron-level ultrasonic vibration by near-field microwave
P55	<u>Fei Wang</u> <i>Harbin Inst. of Technology, China</i>	Intelligent Identification for Delamination Defects of Aviation Honeycomb Sandwich Composites (HSCs) Using Convolution Neural Network Fusion Lock-in Thermography
P56	<u>Zhuoyan Yue</u> <i>Harbin Inst. of Technology, China</i>	Research on Multi-dimensional Feature Recognition for PCBs Typical Defects Using Laser Ultrasonic Imaging

### 10. Low-Dimensional Systems, Nanoscale Phenomena and Nanostructures

P57	<u>Maria Tareeva</u> <i>Lebedev Physical Inst., Russia</i>	Multiple Stokes and Anti-Stokes Components Generation by Biharmonic Pumping via Stimulated Low-Frequency Raman Scattering
P58	<u>Usiel Omar García Vidal</u> <i>Nat. Polytechnic Inst. of Mexico</i>	Study of the thermal properties of resin/graphene nanocomposite for 3D print applications
P59	<u>Usiel Omar García Vidal</u> <i>Nat. Polytechnic Inst. of Mexico</i>	Thermal study of ferromagnetic nanoparticles coated with mesoporous Silicon Oxide

### 11. Environmental, Agricultural, and Food Applications

P60	<u>Saucedo-Alfonzo DA</u> <i>Nat. Polytechnic Inst. of Mexico</i>	Characterization of natural hepatoprotectors and added foods by photoacoustic spectroscopy and colorimetry.
P61	<u>Usiel Omar García Vidal</u> <i>Nat. Polytechnic Inst. of Mexico</i>	Thermal properties measurement of chitosan-based films for agricultural applications
P62	<u>Raul Romero-Galindo</u> <i>Nat. Polytechnic Inst. of Mexico</i>	Characterization of plasma-treated gooseberry ( <i>Physalis Peruviana</i> L.) seeds using photoacoustic techniques
P63	<u>Eder Contreras-Gallegos</u> <i>Nat. Polytechnic Inst. of Mexico</i>	Optical and Thermal Properties of Mexican Native Maize and Tortilla
P64	<u>Andre Oliveira Guimaraes</u> <i>State Uni. of Northern Rio de Janeiro, Brazil</i>	Photopyroelectric technique applied to sodium alginate hydrogel characterization

### 12. Analytical Chemistry and Photochemistry

P65	<u>Fidel Roberto Castellanos Duran</u> <i>Nat. Polytechnic Inst. of Mexico</i>	Absolute fluorescence quantum yield spectra of light scattering samples determined using thermal lens spectroscopy aided by optical absorbance and fluorescence measurement
P66	<u>Daniela Amado Santos</u> <i>Uni. of Coimbra, Portugal</i>	Photoacoustic calorimetry study of the conformational variation of the chignolin peptide induced by a pH jump
P67	<u>Behnaz Abbasgholi Nejad Asbaghi</u> <i>Optics Lab ICTP, Italy</i>	Miniaturized gel electrophoresis-thermal lens technique as a highly sensitive photothermal detection method



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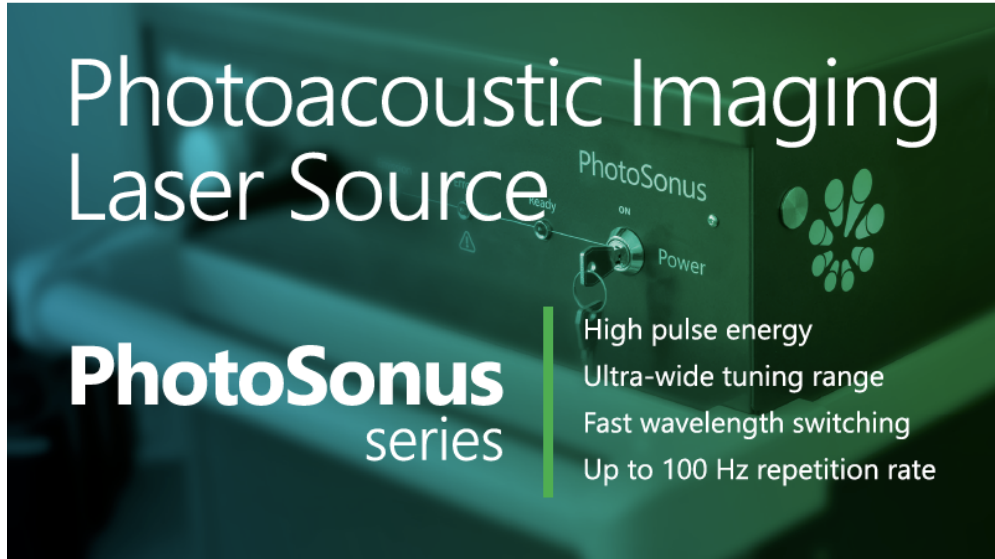


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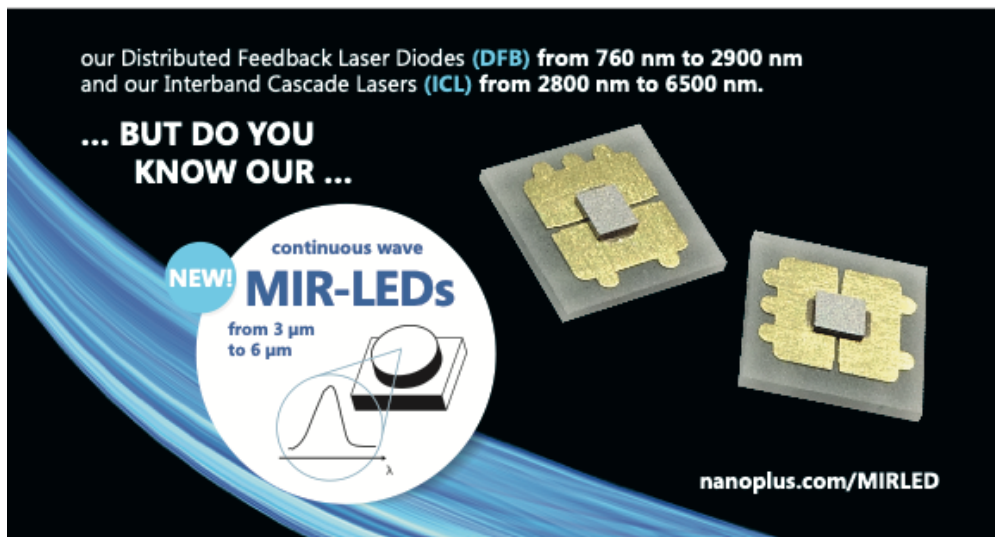
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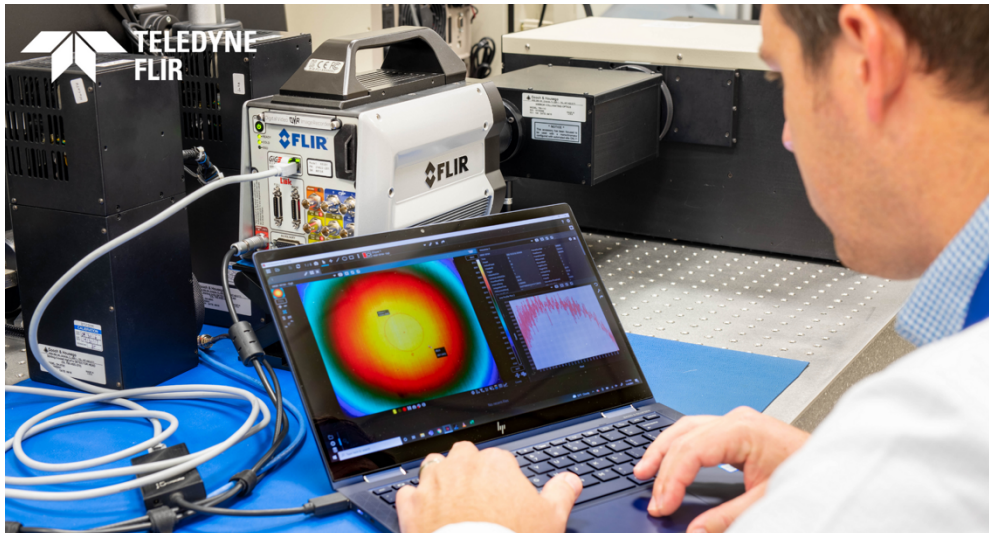
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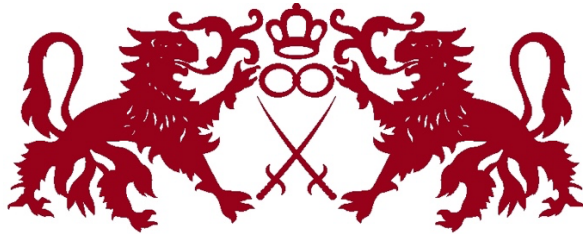


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