

# AOP 2022

## SCIENTIFIC PROGRAM

	#	Title	1 <sup>st</sup> Author	Type
MONDAY, JULY 18				
Oppening Session 13:45 - 14:25		The Vice-Mayor of Guimarães, Dr. Adelina Paula Pinto Prof. Dr. Humberto Michinel (Secretary General of ICO) Prof. Dr. Gilles Pauliat (President of EOS) Prof. Dr. Cesar Costa Vera (Counselour of RIAO) Prof. Dr. Luis Plaja (President of SEDOPTICA) Prof. Dr. Manuel Filipe Costa (Chairperson and president of SPOF)		
14:25 - 15:55 (1h30m) Plenary PI1 Plenary PI2 Chair(s): António Lobo	6676 6534	Trends in Optical Coherence Tomography The role of the laser technologies on the fabrication of organ-on-a-chip devices.	Adrian Podoleanu Maria Teresa Flores Arias	Plenary (45 min=40+5) Plenary (45 min=40+5)
Coffee Break				
Parallel Sessions Mo.1.a 16:30 - 17:50 (1:20 h) Chair(s): Hugo Pires	6816 6595 6707 6736	A touch of symmetry: High-harmonic generation from low-dimensional crystals. Towards 5-cycle, multi-mJ-level mid-IR capability at the L2I Scanning the flying focus of a tabletop vortex EUV beam Various routes for VIS-to-UVC upconverted emission enhancement in lanthanide-doped nanoparticles	Luis Plaja Joana Alves Patricia Estrela Patryk Falat	Keynote (30 min=25+5) Invited (20 min=15+5) Oral (15 min=12+3) Oral (15 min=12+3)
Parallel Sessions Mo.1.b 16:30 - 17:45 (1:15 h) Chair(s): António Lobo	6727 6669 6542 6686 6691	Plasmonic/magnetic liposomes based on nanoparticles with multicore-shell architecture for chemo/thermotherapy Manganese ferrite nanoparticle clusters covered with gold nanorods for application in cancer phototherapy Fiber optic sensor for real-time monitoring of cryosurgery depth Pressure and Angle Sensors with Optical Fiber for Instrumentation of the PrHand Hand Prosthesis Development of tissue-mimicking phantoms for jaundice assessment device validation	Ana Rita Oliveira Rodrigues Irina Soraia Rainho Rio Aris Ikiades Camilo Arturo Rodríguez Díaz Fernando Sacilotto Crivellaro	Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)
Parallel Sessions Mo.1.c 16:30 - 17:50 (1:20 h) Chair(s): Justo Arines	6185 6411 6509 6513 6611	Atmospheric Dispersion Correction for High-Resolution Spectrographs: Past, Present, and Future Comparison between the scanning pentaprism and the Hartman method for wavefront analysis Imaging sensors for spacially resolved solar spectroscopy instrument Characterization of Light Diffraction by a Digital Micromirror Device Development of optical characterization and testing instrument for Sentinel-5 Earth Observation mission	Bachar Wehbe Nuno Gonçalves Inês Leite Cédric Pereira Juliana Kuhlmann Abrantes	Invited (20 min=15+5) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)
SOCIAL PROGRAM				

TUESDAY, JULY 19			
Plenary PI3 8:55 - 9:40 (45 min) Chair(s): Giulia Fulvia Mancini	6622	Topological Optical Clusters	Humberto Michinel
Parallel Sessions Tu.1.a 9:45 - 10:45 (1 h) Chair(s): Jorge Vieira	6555	Time-refraction and temporal optical processes	Jose Tito Mendonca
	6507	Model Hamiltonians of open quantum optical systems: Evolvement from hermiticity to commutativity	Konstantin Zloshchastiev
	6803	Investigation of cold atom turbulent dynamics through a spatially resolved pump-probe diagnostic.	Ruggero Giampaoli
Parallel Sessions Tu.1.b 9:45 - 10:45 (1 h) Chair(s): Joel Borges	5964	Dots-in-Host Semiconductors for Improved Light Management	Miguel Diogo Furtado Alexandre
	6533	Label-Free Multiparametric Analysis Using Photonic Crystal-Based Biosensors	Galina Nifontova
	6587	Study of the impact on the absorption of III-V semiconductor nanopillars coated with dielectric-metal shells	Joao Pedro Pinheiro Lourenço
Parallel Sessions Tu.1.c 9:45 - 10:45 (1 h) Chair(s): Sandra Franco	6530	Synchronous and asynchronous 3D examination of the eye with a slit lamp	Justo Arines
	6529	Teaching Optometry: setup for understanding the subjective refraction protocol and patient answers	Justo Arines
	6504	A Pilot Outreach Program for Optics and Photonics: Develop the Advanced and Pioneering Concepts	Haider M. Al-Juboori
Coffee Break			
Parallel Sessions Tu.2.a 11:15 - 12:30 (1h15m) Chair(s): Mikhail Vasilevskiy	6592	Optical properties of low dimensional materials	Pawel Hawrylak
	6600	Superradiant optical shocks in arbitrarily diluted media	Jorge Vieira
	6656	Reversible and non-reversible effects of silver nanoparticles on the photoluminescence properties of quantum emitters	Victor Krivenkov
Parallel Sessions Tu.2.b 11:15 - 12:30 (1h15m) Chair(s): António Lobo	6567	Multi-wavelength optical phase unwrapping using low coherence Mirau interferometer	Amalia Martínez-García
	6488	White light interferometer for Fabry-Perot cavities sensors with absolute physical measurement	João Manuel Gonçalves Pereira da Cunha
	6711	A Low-cost Portable Interrogator for Dynamic Monitoring of Wavelength-Based Sensors	Camilo Arturo Rodríguez Díaz
	6715	Development of a Low-Cost Interrogation System Using a MEMS Fabry-Pérot Tunable Filter	João Carlos Costa Araújo
Parallel Sessions Tu.2.c 11:15 - 12:30 (1h15m) Chair(s): Maria Teresa Flores-Arias	6701	Single-cycle laser pulses through nonlinear pulse compression	Mariana Silva
	6606	Pulse broadening and compression of visible spectral range laser in a Herriott cell	Victor Hariton
	6681	YCOB based ultrabroadband optical parametric amplification with a sub-picosecond pump source	Hugo Pires
	6486	High contrast front-end for a petawatt laser system designed for electron acceleration and high intensity laser-matter interaction	Mario Galletti
Lunch			
Parallel Sessions Tu.3.a 14:25 - 15:55 (1h30m) Chair(s): António Baptista	6527	Engineering the pupil for wavefront masking	Justo Arines
	6709	What is the impact of accommodative insufficiency on the optical quality of the eye?	Jessica Rafaela Moreira Gomes
	6528	Low cost adherent lenses for presbyopia	Justo Arines
	6589	Assessment of central and peripheral accommodative lag by aberrometry	Kishor Sapkota

	6479	<i>Comparison between central corneal thickness, anterior chamber depth and axial length values with and without</i>	Hugo Pena-Verdeal	Oral (15 min=12+3) Poster
Parallel Sessions Tu.3.b 14:25 - 16:00 (1h35m) Chair(s): Elisabete Freitas	6744	<i>Subaqueous laser induced plasma-assisted ablation for channels and wells fabrication on glass substrates</i>	Carmen Bao	keynote (30 min)
	6695	<i>Optimization of pulsed laser deposition process of superconducting YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub> films</i>	Mohd Mustafa Awang Kechik	Invited (20 min=15+5)
	6828	<i>Optical, structural, morphological and chemical properties of doped TiO<sub>2</sub> nanoparticles with FeCl<sub>3</sub></i>	Cátia Juliana Pereira Afonso	Oral (15 min=12+3)
	6813	<i>Thermochromism applied to Transportation Engineering: asphalt roads and paints</i>	Orlando de Sousa Lima Júnior	Oral (15 min=12+3)
	6723	<i>Photocatalytic degradation of Malachite green using magnetic zinc and magnesium ferrite nanoparticles function</i>	Ricardo Jorge Cunha Fernandes	Oral (15 min=12+3)
Parallel Sessions Tu.3.c 14:25 - 15:55 (1h30m) Chair(s): Ana Rita Rodrigues	6837	<i>Ultrafast spectroscopy of biomolecules in the ultraviolet range</i>	Rocío Borrego-Varillas	keynote (30 min)
	6607	<i>Assessment of lipid formulations to develop multi-stimuli-responsive solid magnetoliposomes using fluorescence</i>	Beatriz Dias Cardoso	Oral (15 min=12+3)
	6724	<i>Highly selective, compact and efficient vertical in-coupling for interferometric optical biosensors</i>	Ursula Fernanda Salazar Roggero	Oral (15 min=12+3)
	6734	<i>Development of an Escherichia coli optical biosensor with computational validation</i>	Regina Célia da Silva barros Allil	Oral (15 min=12+3)
<b>Poster Sessions Tu.T &amp; Coffee Break</b>	6696	<i>Design and simulation of 3D printed freeform optics elements</i>	Ana Rocha	Poster
	6666	<i>Amorphous Silicon Photonic Integrated Circuit for beam steering in Lidar applications</i>	Alessandro Fantoni	Poster
	6731	<i>Ocular accommodation and wavefront aberration in university students</i>	Alshaarawi M.A. Salem	Poster
16:00-17:30 (1h30m) Chair(s): Manuel Filipe Costa Iran Rocha Segundo Ana Rocha André Delgado Coelho <i>(max. poster size - A0)</i>	6579	<i>Effect of accommodation on coma at central and peripheral retina</i>	Kishor Sapkota	Poster
	6548	<i>Influence of absorptive tinted filter lenses on contrast sensitivity in healthy participants under three different env</i>	Jacobo Garcia-Queiruga	Poster
	6547	<i>Meibomian gland loss area and its relationship with eyelid margin hyperemia and MG orifice plugging</i>	Jacobo Garcia-Queiruga	Poster
	6546	<i>Differences in the values of Anaglyphs, vectograms and cheirosopes on participants with low, normal, and high A</i>	Hugo Pena-Verdeal	Poster
	6545	<i>Comparison of three methods for measuring far and near vision heterophoria in free space</i>	Hugo Pena-Verdeal	Poster
	6481	<i>Analysis of the Interferential Lipid Pattern change through 4 and 6 years in Dry Eye Disease patients</i>	Hugo Pena-Verdeal	Poster
	6720	<i>Hyperspectral Colorimetry of in-vivo dental structures</i>	María de la Natividad Tejada Casa	Poster
	6615	<i>Reservoir computing with nonlinear optical media</i>	Tiago David da Silva Ferreira	Poster
	6732	<i>Detection of Acetic Acid Using a Balloon-type Optical Fibre Sensor</i>	Ana Isabel Freitas	Poster
	6726	<i>Autonomous Optical Tweezers: from automatic trapping to single particle analysis</i>	Felipe Coelho Moreira Ribeiro Cou	Poster
	6718	<i>Absorption and scattering coefficients in the 240-780nm range of daily disposable contact lenses</i>	Javier Ruiz López	Poster
	6716	<i>Guiding losses estimation in hydrogel-based waveguides</i>	Juan Antonio Vallés	Poster
	6708	<i>Noise analysis in self-interference incoherent digital holography</i>	Elena Stoykova	Poster
	6689	<i>Thermoelectric imaging using photothermal radiometry of carriers, photoluminescence mapping in aged samples</i>	Samuel Eligio Zambrano Rojas	Poster
	6679	<i>Methods of optical fibre probes machining for holographic micro-endoscopy</i>	Miroslav Stibůrek	Poster
	6651	<i>Integrating Laser induced breakdown spectroscopy and photogrammetry towards 3D element mapping</i>	Pedro Miguel Oliveira Rodrigues	Poster
	6649	<i>Listening plasmas in Laser Induced Breakdown spectroscopy</i>	Rafael Anjo Cavaco	Poster
	6644	<i>Multimodal approach to mineral identification: merging Laser induced breakdown spectroscopy with hyperspectr</i>	Tomás José Moreira Lopes	Poster
	6640	<i>Drying Patterns of Cerebrospinal Fluid as Indicator for Alzheimer's Disease by a Machine Learning Framework</i>	Laura Arévalo Díaz	Poster
	6629	<i>Low-Cost Ultrafine Motion Control System Design for Nano Positioning and Beam Steering</i>	Gaurav Rajput	Poster
	6628	<i>Color interferometry using the fractional Fourier transform</i>	Juan Manuel Vilardy Orrtiz	Poster
	6627	<i>Real color fractional Fourier transform holograms using fiber optics</i>	Juan Manuel Vilardy Orrtiz	Poster
	6621	<i>Towards real-time identification of trapped particles with UMAP-based classifiers</i>	Joana Magalhães B. Teixeira	Poster
	6620	<i>Raman based DTS using a 1064 nm pump</i>	Joana dos Santos Saraiva Vieira	Poster

6612	Robust calibration models for the mining industry: from spectral similarity to multimodal analysis	Nuno Miguel Azevedo Silva	Poster
6572	Nonlinear encryption for multiple images based on a joint transform correlator and the Gyrator transform	Ronal A. Perez	Poster
6571	Double image encryption system using a nonlinear joint transform correlator in the Fourier domain	Ronal A. Perez	Poster
6570	Convolution, correlation and generalized shift operations based on the Fresnel transform	Juan Manuel Vilardy Orrtiz	Poster
6526	Electricity generation from solar irradiation using the Seebeck effect	Johonfri Mendonza Cantillo	Poster
6524	Multiplexed holographic lenses applied to solar concentrators and passive solar trackers	Eder Manuel Alfaro Alfaro	Poster
6490	GUI-Based Phase Retrieval Algorithm for the Reconstruction of the Longitudinal Component of Electromagnetic Beam	Marcos Aviñoá Pérez	Poster
6474	Percentage estimate of the coffee seeds germination using processing of dynamic speckle images	Juan Manuel Vilardy Orrtiz	Poster
6929	Optical generation of surface plasmons in graphene with femtosecond laser pulses	Rui Jorge Pinto Dias	Poster
6537	Au-ZnO thin films: Influence of gold concentration and annealing on the microstructure and plasmonic response	Patrícia Alexandra P. da Silva	Poster
6699	Diffractive optical element fabrication at chalcogenide thin film surface	Vadims Kolbjonoks	Poster
6557	Hand grip strength using an FP sensor embedded in 3D printed cantilever	Susana Novais	Poster
6488	White light interferometer for Fabry-Perot cavities sensors with absolute physical measurement	João Manuel G. Pereira dos Reis	Poster
6619	Fabry-Perot cavity based on silica tube with steel for Physical parameters measurements	Cristina do Carmo G. Cunha	Poster
6510	Simulation and development of a prototype for high precision surface metrology	Sílvia Rodrigues Costa	Poster
6508	Development of plasmonic thin films for new biodetection approaches	Diana Meira	Poster
6735	<i>Silicon Nitride Interferometers for Optical Sensing with Multi-micron Dimensions</i>	João Costa	Poster
6479	<i>Comparison between central corneal thickness, anterior chamber depth and axial length values with and without</i>	Verónica Noya Padín	Poster
6727	<i>Plasmonic/magnetic liposomes based on nanoparticles with multicore-shell architecture for chemo/thermotherapy</i>	Mélanie Fernandes	Poster
6623	<i>MMI Splitters and Combiners for Multi-Micron Amorphous Silicon Nitride Rib Waveguides</i>	Daniel Gonçalves P. S. Almeida	Poster
6690	<i>Ionisation of camphor molecule doped in helium nanodroplets by EUV and soft X-ray photons</i>	Sanket Sen	Poster online
6700	<i>Effect of bandwidth on Two Plasmon decay instability</i>	Sonali Khanna	Poster online
6697	<i>Electron spectrum and angular distribution from aerosol jet collimated by an aerodynamic lens</i>	Ravishankar Sugumar	Poster online
6556	<i>Relativistic electron acceleration at non-relativistic intensities using sub-lambda targets</i>	Ratul Sabui	Poster online

<b>SOCIAL PROGRAM</b>			
<b>WEDNESDAY, JULY 20</b>			
Plenary PI4 8:55 - 9:40 (45 min) Chair(s): Sandra Franco	6500	Peripheral optics in the eye: from myopia to cataracts	Pablo Artal Plenary (45 min=40+5)
Parallel Sessions We.1.a 9:45 - 10:45 (1 h) Chair(s): António Baptista	5998 6721 6717	Some recent advances in color science Color prediction of monolithic and layered dental resin composites of varying thicknesses Effect of thickness and printing angle on color of 3D printing dental restorative polymer-based materials.	Manuel Melgosa María de la Natividad Tejada Casas Javier Ruiz López Keynote (30 min=25+5) Oral (15 min=12+3) Oral (15 min=12+3)
Parallel Sessions We.1.b	6713	Standardization of Diffractive Optical Surfaces	Michael Pfeffer Keynote (30 min=25+5)

9:45 - 10:45 (1 h) Chair(s): Paulo Tavares	6601 <a href="#">Optical design for Sport Optics (LEICA)</a>	João Tiago Costa Silva	Invited (20 min=15+5)
Parallel Sessions We.1.c 9:45 - 10:45 (1 h) Chair(s): Jorge Vieira	6860 <a href="#">Photon bubble turbulence in cold atomic gases: astrophysics in the lab</a> 6616 Experimental turbulent states with paraxial fluids of light in photorefractive media 6047 Expansion Dynamic and Characterization of Stagnation Layer in Laterally Colliding Plasmas: Dependence of Obs	Hugo Terças Tiago David da Silva Ferreira Haider M. Al-Juboori	Keynote (30 min=25+5) Oral (15 min=12+3) Oral (15 min=12+3)
<i>Coffee Break</i>			
Parallel Sessions We.2.a 11:15 - 12:15 (1h00m) Chair(s): Nuno Azevedo Silva	6817 <a href="#">On the total estimation of the electromagnetic field in the focal area with no interaction with the media</a> 6632 Contribution to the improvement of the correlation filter method modal analysis with a spatial light modulator 6056 Design concepts of a new imaging system for a high-intensity XUV source beam by colour centres excitation in lith	David Maluenda Niubó David Benedicto Baselga Haider M. Al-Juboori	Keynote (30 min=25+5) Oral (15 min=12+3) Oral (15 min=12+3)
Parallel Sessions We.2.b 11:15 - 12:30 (1h15m) Chair(s): Susana Novais	6685 Rubber vulcanization method for FBG pressure sensors 6722 A FBG based sensor for horizontal displacement measurements of a small scale tailing dam model. 6950 Fatigue crack growth monitoring using Electronic Speckle Pattern Interferometry 6704 Innovative hybrid optical sensing design to simultaneously discrimination of pressure and temperature 6682 A Fiber Bragg Grating based Accelerometer for Monitoring the Vibration of an Industrial Engine Prototype: A Prel	Camilo Arturo Rodríguez Díaz Willian Lima de Oliveira Filho Frederico Preto Direito Fábio Henrique Baptista de Freitas Camilo Arturo Rodríguez Díaz	Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)
Parallel Sessions We.2.c 11:15 - 12:30 (1h15m) Chair(s): José António Rodrigues	6725 <a href="#">Azobenzene based on-fiber waveplates for polarization control</a> 6593 Optimal filtering of measured Mueller matrices using full Poincaré polarimetry 6591 Estimation of Zernike polynomials for a highly focused electromagnetic field using polarimetric mapping images a 6968 The development of test station to characterize the capabilities of emission of LiDAR 6523 Implementation of a Scheimpflug Lidar for Assessment of Native Aerofauna in Tropical Forests in Ecuador	Paulo António M. F. Ribeiro Juan Carlos Suárez-Bermejo Kavan Ahmadi Nelssom Fernandez da Cunha Cesar Costa-Vera	Invited (20 min=15+5) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)
<i>Lunch</i>			
<b>SOCIAL PROGRAM</b>			
<b>THURSDAY, JULY 21</b>			
Parallel Sessions Th.1.a 10:10 - 11:15 (1:05 h) Chair(s): Bruno Romeira	6531 <a href="#">to be announced</a> 6774 Neural network computing with large-area lasers 6774 Photonic Neuromorphic Computing with Vertical Cavity Surface Emitting Lasers	Bert Offrein Xavier Porte Antonio Hurtado	Keynote (30 min=25+5) Invited (20 min=15+5) Oral (15 min=12+3)
Parallel Sessions Th.1.b 10:10 - 11:10 (1 h) Chair(s): Amalia Martínez-García	6584 Dynamic speckle Imaging with SVD compression 6512 Data Augmentation in 3D Object Detection for self-driving vehicles: the role of original and augmented training sa 6145 Intrinsic temperature-compensated fibre optic current/magnetic sensor 4733 Considerations involving the determination of the band gap energy by diffuse reflectance spectroscopy	Mikhail Levchenko Xavier Santos Paulo Robalinho Iran Gomes da Rocha Segundo	Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)

Parallel Sessions Th.2.a 11:15 - 12:30 (1h15m) Chair(s): Ana Rocha	6578 Coupled two-cores integrated waveguides modal analysis 6661 Analysis of power transfer between two multi-core fibers with long-period gratings 6564 Indoor Guidance of Automated Guided Using Visible Light Communication 6544 Cooperative Traffic Control using Visible Light Communication 6532 Visible Light Communication-based Indoor Navigation for Mobile Users in Large Buildings	David Benedicto Baselga Liliana Mendes Sousa Paula Maria Garcia Louro Manuel Augusto Vieira Manuela Vieira	Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)
Parallel Sessions Th.2.b 11:15 - 12:35 (1h20m) Chair(s): José Manuel Baptista	6804 Photonic tools for single cell analysis 6650 Generation of high-frequency photoacoustic pulses to enhance skin permeation of active molecules 6730 Multifunctional liposomes containing magnetic and gold nanoparticles for cancer therapy 6641 Detection of Alzheimer's by Machine Learning-assisted Vibrational Spectroscopy in Human Cerebrospinal Fluid	Pedro Alberto da Silva Jorge Celso Paiva João Mélanie R. Pereira Laura Arévalo Díaz	Keynote (30 min=25+5) Invited (20 min=15+5) Oral (15 min=12+3) Oral (15 min=12+3)
Parallel Sessions Th.2.c 11:15 - 12:30 (1h15m) Chair(s): Bruno Romeira	6693 Insect-Brain inspired Neuromorphic Nanophotonics 6610 Dendritic-like computation using multimode optical fibers 6586 High-speed Silicon Photonic neuromorphic computing enabled by hardware-aware deep learning methods 6636 Optical Computing with Extreme Learning Machines	Anders Mikkelsen Miguel C. Soriano Miltiadis Moralis-Pegios Nuno Miguel Azevedo Silva	Keynote (30 min=25+5) Invited (20 min=15+5) Invited (20 min=15+5) Oral (15 min=12+3)
<b>Lunch</b>			
Plenary P15 14:25 - 15:10 (45 min) Chair(s): Humberto Michinel	6568 Ultrafast ptychography: from tabletop HHG to Free Electron Lasers	Giulia Fulvia Mancini	Plenary (45 min=40+5)
Parallel Sessions Th.3.a 15:15 - 16:30 (1h15m) Chair(s): Paulo Ribeiro	7071 Ultra-fast Laser-induced Molecular Dissociations on Plasmonic Nanoparticles Driven by Tailored Optical Fields: Ma 6660 Hollow square core fiber sensor for physical parameters measurement 6735 Silicon Nitride Interferometers for Optical Sensing with Multi micron Dimensions 6733 Fiber Loop Mirror temperature sensor interrogated with different techniques 6522 Plasmonic and Thermal Properties of Nanostructured Systems Probed with Low-cost Optical Setups	Cesar Costa-Vera Diana Sofia Antunes Pereira João Costa António Vaz Rodrigues Cesar Costa-Vera	Keynote (30 min=25+5) Oral (15 min=12+3) Oral (15 min=12+3) Poster Oral (15 min=12+3) Oral (15 min=12+3)
Parallel Sessions Th.3.b 15:15 - 16:30 (1h15m) Chair(s): Rogério Nogueira	6465 Highly Sensitive Plasmonic Sensors and Biosensors realized via Polymer Waveguides 6551 Improving plasmonic sensing with suspended core fibres and metallic nanostructured inclusions 6639 Strongly coupled plasmonic systems on optical fiber sensors	Nunzio Cennamo José Manuel Baptista Paulo Sérgio Soares dos Santos	Keynote (30 min=25+5) Keynote (30 min=25+5) Oral (15 min=12+3)
Parallel Sessions Th.3.c 15:15 - 16:30 (1h15m) Chair(s): José Figueiredo	6740 Room-Temperature Electroluminescence in RTDs: Towards a Universal Model 6574 Dual-functioning emitter-receiver III-V unipolar and bipolar microLEDs for on-chip neuromorphic photonic circuits 6625 Resonant Tunnelling Diode – Photodetectors for spiking neural networks 6692 Towards spiking laser diodes on a III-V/Si nanophotonic platform for neuromorphic applications	Elliot R Brown Bejoys Jacob João Pedro Pinheiro Lourenço Ekaterina Malysheva	Keynote (30 min=25+5) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)
<b>Coffee Break</b>			
Parallel Sessions Th.4.a	6953 Optical nanoantennas: from sensing to killing cancer	Pablo Alabella Echave	Keynote (30 min=25+5)

17:00 - 18:30 (1h15m) Chair(s): Pedro Jorge	6667 <a href="#">Au nanoparticles/semi-conductor thin film prepared by laser annealing and sol-gel</a> 6727 <a href="#">Plasmonic/magnetic liposomes based on nanoparticles with multicore-shell architecture for chemo/thermotherapy</a>	Olivier Soppera Mélanie Fernandes	Keynote (30 min=25+5) Oral (15 min=12+3)
Parallel Sessions Th.4.b 17:00 - 18:15 (1h15m) Chair(s): Orlando Frazão	6535 Gas detection with high-resolution LSPR spectroscopy 6714 Photonic Crystal Design for Bloch Surface Wave Sensing 6673 Advanced refractive index sensor using 3-dimensional metamaterial based nano antenna array 3724 Humidity and touch sensing by capacitive-type sensors obtained by electrochemical anodization 7103 25G Receiver and Analysis of Filters Frequency Response	Maria Manuela Carvalho Proença Bernardo Santos Dias Sneha Verma Iran Rocha Segundo Adebayo Abejide	Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)
Parallel Sessions Th.4.c 17:00 - 18:30 (1h30m) Chair(s): José Figueiredo	6613 <a href="#">Brain-inspired nanophotonic spike computing to be announced</a> 6706 Two-photon polymerization simulation and fabrication of 3D microprinted suspended waveguides for on-chip opt 6671 Subwavelength structures for taper waveguides 6623 <a href="#">MMI Splitters and Combiners for Multi-Micron Amorphous Silicon Nitride Rib Waveguides</a>	Bruno Miguel Patarata Edward Wasige Artur Andrišhak Paulo Lourenço Daniel Gonçalves P. S. Almeida	Keynote (30 min=25+5) Invited (20 min=15+5) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)
<b>FRIDAY, JULY 22</b>			
Parallel Sessions Fr.1.a 9:45 - 11:20 (1:35 h) Chair(s): Pedro Jorge Beatriz Dias Cardoso	6654 <a href="#">Molecularly imprinted nanoparticles: plastic antibodies for optical sensing platforms.</a> 7135 <a href="#">Nanoscopy, Metabolic Imaging and Intracellular Sensing based on Nanophotonics and Nonlinear Microscopy</a> 6536 Dehydropeptide-based plasmonic lipogels as bionanosystems for controlled drug release 6659 Nanoscale distance sensing using fluorescently-labelled DNA origami tetrahedra on Graphene 6729 Development of pH-sensitive magnetoliposomes containing shape anisotropic magnetic nanoparticles for applica	Alessandra Maria Bossi Jana Nieder Sérgio Rafael da Silva Veloso João Duarte Gonçalves Azevedo Ana Rita F. Pacheco	Keynote (30 min=25+5) Keynote (30 min=25+5) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)
Parallel Sessions Fr.1.b 9:45 - 11:20 (1:35 h) Chair(s): Susana Silva Orlando Frazão	6561 <a href="#">Optical harmonic Vernier effect: properties and applications</a> 6684 Optofluidic fibre sensor for the real-time measurement of refractive index 6657 Simultaneous measurement of displacement and temperature using balloon-like hybrid fiber sensor 6712 Characterization of a D-shaped photonic crystal fiber with two silver-Al <sub>2</sub> O <sub>3</sub> nanowire metamaterial layers 6703 Optical fiber sensor based on balloon-like interferometer structure and 3D printer for displacement sensing 6710 Evaluation of the orientation impact in thermal behavior of cylindrical Li-ion batteries in different cycling conditio	André Rodrigues Delgado Coelho João Micael da Silva Leça João Pedro Fidalgo Santos Amanda de Freitas Romeiro Victor Henrique R. Cardoso Lucca de Carvalho Matuck	Invited (20 min=15+5) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)
Parallel Sessions Fr.1.c 9:45 - 11:20 (1:35 h) Chair(s): Mohd M. Awang Kechik Paulo Ribeiro	6694 <a href="#">Magneto-piezoresistance in magnetorheological elastomer for low range conductive feedback</a> 6705 Investigation on the operation modes of optoelectronic oscillators based on resonant tunnelling diodes 6516 Optimizations of Si PIN Diode Phase-Shifter Combined with RC Equalizer Under Forward Biasing 6174 Impact of Sm on microstructure and Faraday magneto-optical effects of transparent Y <sub>2</sub> O <sub>3</sub> ceramics 6662 Optical Fiber Sensors for Monitoring Cement Paste Carbonation 6830 Reducing the sunlight impacts in urban areas using asphalt mixtures with phase change materials: a review in Sco	Muhammad Kashfi Bin Shabdin Tiago Colaço S. da Franca Ferro Dror Malka Andrzej Kruk Pedro Miguel Madeira da Silva Iran Gomes da Rocha Segundo	Invited (20 min=15+5) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3) Oral (15 min=12+3)
<b>Awards and Closing Ceremony</b>	<b>11:25-12:30</b>		