

Sunday, 21st September	
15:30 - 19:30	PL (Plenary Room)
19:00 - 19:30	PR (Poster Room)
19:30 - 20:30	PL (Plenary Room)
20:30 - 22:00	PR (Poster Room)

BRICS Session 1: Collaboration opportunities in Photonics and projects among BRICS countries

Reception

Opening Ceremony and Invited Talk "From basic research with atoms and molecules to the applications of light in life sciences: the trajectory of CEP/CF and its innovations", Vanderlei Bagnato

Coffee

Monday, 22nd September				
8:30 - 8:15	PL	Plenary Session 1 - Biophotonics - Jürgen Popp (Leibniz Institute of Photonics Technology - Germany)		
8:15 - 10:00	PR	Plenary Session 2 - Lasers - Daniel Renner - IEEE Photonics Society		
10:00 - 10:30	PR	Coffee Break		
10:30 - 10:50	Biophotonics Session 1 (PL)	Integrated Photonics and Optoelectronics Session 1 (ROOM 1)	Agri-photonics and Sustainability Session 1 (ROOM 2)	4th Photonics Industry and Entrepreneurship Workshop (ROOM 3)
10:50 - 11:05	Invited Talk 1 - Hugh J Byrne - the FOCAS Research Institute, TU Dublin - Ireland (BioSpec School)	Invited Talk 2 - Cleber Renato Mendonça (Ultrafast laser processing for novel photonic systems)	Invited Talk 3 - Giorgio Senni - CNR - Italy (Laser-induced transition spectroscopy, a fast in situ technique applied to identify and discriminate grains and seeds of different nature and detect plant viruses)	Photonics Innovation and Business 1
11:05 - 11:20	Oral Presentation 1 (157117052) Discriminating Oral Squamous Cell Carcinoma via μFTIR Spectroscopy Imaging and Tree-Based Models	Oral Presentation 2 (157117272) Hybrid integration of two-dimensional dichalcogenides for low power substrate absorption in photonic integrated circuits	Oral Presentation 3 (157117236) Integrating LIBS and Machine Learning to Identify Aphelenchoides besseyi Infection in Asymptomatic Soybean Leaves	BRICS Meeting
11:20 - 11:35	Oral Presentation 4 (157117236) Impact of Sampling Strategies on the Classification of micro-FTIR Spectroscopy Data	Oral Presentation 5 (157117001) Erbium and ytterbium co-doped calcium-zinc and sodium-zinc phosphate glasses as high-gain media for integrated photonics	Oral Presentation 6 (157116158) Detection of Escherichia coli in Tomatoes Using Laser-Induced Breakdown Spectroscopy and Machine Learning	BRICS Meeting
11:35 - 11:50	Oral Presentation 9 (157117369) Laser Ablation in Liquids as a Versatile Approach for the Synthesis of Hybrid Nanoparticles with Plasmonic and Magnetic Plasmonic SERS Applications	Oral Presentation 10 (157117107) Incorporation of BaTiO ₃ Er:Yb Nanoparticles into Polymeric Resins for Two-Photon Polymerization	Oral Presentation 11 (157117275) Total Carbon and Nutrient Quantification in Brazilian Soils Using LIBS Technique with One-Point Calibration	BRICS Meeting
11:50 - 12:05	Oral Presentation 13 (157116808) Chemometric Evaluation of Ampicillin Stability using FTIR Spectroscopy and Multivariate Techniques	Oral Presentation 14 (157117278) Influence of Silicon Substrate Type and HF Concentration on the Optical and Morphological Properties of Porous Silicon Microcavities	Oral Presentation 15 (157117268) Automated Nutritional Diagnosis in Plants Using DP-LIBS and LIBS Software	BRICS Meeting
12:05 - 12:30	RESTAURANT	Lunch		
13:30 - 14:15	PL	Plenary Session 3 - Photonics and Quantum technologies - Gustavo Wiederhecker - Unicamp		
14:15 - 14:30	PR	Plenary Session 4 - Integrated Photonics and Optoelectronics - Silvana F. Pereira - Delft University of Technology		
15:30 - 15:30	PR	Coffee Break		
15:30 - 15:50	Optics and Instrumentation Session 1 (PL)	Lasers Session 1 (ROOM 1)	Optical Communication Session 1 (ROOM 2)	4th Photonics Industry and Entrepreneurship Workshop (ROOM 3)
15:50 - 16:05	Invited Talk 4 - Daniel Magalhães - Instituto de Física USP (Atomic Standards of Time and Frequency and timekeeping applications)	Invited Talk 5 - Claire Gosselin - University of Glasgow, UK (Skyrmions as topological light fields)	Invited Talk 6 - Paulo Sérgio de Brito Andre - Instituto Tecnológico (Quantum Technology: The Pathway for Intrinsic Secure Communication)	Photonics Innovation and Business 2
16:05 - 16:20	Oral Presentation 17 (157117102) Reliable and Affordable Interferometric Wavemeter	Oral Presentation 18 (157116701-R) Spectral Beam Combining: Implementation and Performance Analysis	Oral Presentation 19 (157117458) NSGA-II-based multi-objective optimization of neural networks for nonlinear compensation in digital coherent interconnects	BRICS Meeting
16:20 - 16:35	Oral Presentation 21 (157117420) A Modular Open-Source Platform for Laboratory Automation in Spectroscopic Applications	Oral Presentation 22 (157117059) ReLU-like Nonlinear Activation from an Nd:YVO ₄ Random Laser	Oral Presentation 23 (157117240) Mitigation of Nonlinear Distortion in Unpaired Interconnects Employing Clustering Algorithms	BRICS Meeting
16:35 - 16:50	Oral Presentation 25 (157117244) Polarization-Resolved Heterodyne Z-Scan for nonlinear refractive index discrimination using ultrafast high-repetition laser pulses	Oral Presentation 26 (157117073) Adaptive Optics Systems: Lagrange-Based Wobler/Tweeter Control	Oral Presentation 27 (157117036) PM-4-based Cost Function for CD Estimation in Kramer-Koenig SSB-PM-4 Systems	BRICS Meeting
16:50 - 17:00	PR	Poster Session		
17:00 - 17:30	RESTAURANT	Happy Hour (for your own) Dinner		

Tuesday, 23rd September				
8:30 - 8:15	PL	Plenary Session 5 - Optics and Instrumentation - Inair Gontijo (JPL, NASA - USA)		
8:15 - 10:00	PR	Plenary Session 6 - Agri-photonics and Sustainability - Timur Lubalin, Lomonosov Moscow State University		
10:00 - 10:30	PR	Coffee Break		
10:30 - 10:50	Biophotonics Session 2 (PL)	Photonics and Quantum Technologies Session 1 (ROOM 1)	Sensors, Image and Illumination Session 1 (ROOM 2)	4th Photonics Industry and Entrepreneurship Workshop (ROOM 3)
10:50 - 11:10	Invited Talk 8 - Peter Gardner - Manchester University UK (BioSpec School)	Invited Talk 7 - Thiago Alegre (Advances in Optomechanical Platforms for Quantum Photonics and Transduction)	Invited Talk 9 - Marcos Naim (Rare Earths Containing Gamma Single Crystals for Magneto-Optical and Luminescent Sensors)	Photonics Innovation and Business 3
11:10 - 11:25	Invited Talk 10 - Hide Haru Buzza - Pontificia Universidad Católica de Chile, Santiago, Chile (Uso de micrografías fotográficas para comparación de efectos fotodinámicos)	Invited Talk 16 - Celso Vilas Boas - UFSCAR (From Fundamental Light Interference to Quantum Communication: New Interpretation and Applications)	Oral Presentation 30 (157117274 - Non-Invasive Investigation of Humidity in Natural Fibers Using LIBS Spectroscopy Analysis)	BRICS Meeting
11:25 - 11:40	Oral Presentation 33 (157117282) Evaluation of ALA-Mediated Sonodynamic, Photodynamic, and Sonophotodynamic Therapies in a Murine Model of Early-Stage Cutaneous Melanoma	Oral Presentation 32 (157117269) Evaluating Quantum Randomness: Random-Walk-Based Characterization of Quantum Random Number Generators	Oral Presentation 34 (157115886) High-Resolution Microcontroller-Based Interrogator for Fiber Bragg Grating Arrays	BRICS Meeting
11:40 - 11:55	Oral Presentation 37 (157117245) Low-cost driver for pulsed blue laser diode systems for ophthalmic treatment	Oral Presentation 36 (157117364) Broadband photonic structures to achieve high coupling efficiencies and Purcell factors with dark and straylight ectors in 2D materials	Oral Presentation 38 (157117272) Direct laser writing of binary Fresnel Zone Plates for low-cost Shack-Hartmann wavefront sensors	BRICS Meeting
11:55 - 12:10	Oral Presentation 41 (157117236) NIR-Triggered Photochemical Antimicrobial Strategy Using PCDOT Nanoparticles	Oral Presentation 40 (157117278) Statistical Analysis of the Experimental Reconstruction of Photon Distribution for Aligned Lasers	Oral Presentation 42 (157116807) Flattened Bayer spectral router based on meta-lens arrays	BRICS Meeting
12:10 - 12:30	RESTAURANT	Lunch		
13:30 - 14:00	PL	Talk: SISFOTON Integrator Laboratory - Rafael Figueiredo (CPQD)		
14:00 - 14:20	Lasers Session 2 (PL)	Optical Communication Session 2 (ROOM 1)	Integrated Photonics and Optoelectronics Session 2 (ROOM 2)	4th Photonics Industry and Entrepreneurship Workshop (ROOM 3)
14:20 - 14:35	Invited Talk 11 - Henrique Guimarães Rosa Rosa (Machdore) (Experimental demonstration of graphene)	Invited Talk 12 - Filippo Ghiglieno (LFSCar)	Invited Talk 13 - Evandro Coutinho (Unicamp) (Photonics Integrated Circuits: Basic Challenges and Promises)	Photonics Innovation and Business 4
14:35 - 14:50	Oral Presentation 44 (157117287) AND, OR, and XOR Optical Logic Gates via Pixel-Wise Modulation with Spatial Light Modulators and 4f System)	Oral Presentation 45 (157116547) Optical fiber transverse displacement sensor based on a 3D printed structure and specklegram analysis	Oral Presentation 46 (157117247) Influence of the Electrode Size in the Design of Polymer-Based Photo-Electro-Optic Modulators	BRICS Meeting
14:50 - 15:05	Oral Presentation 48 (157117066) Comparative Analysis of Transverse Mode Instability in Single-Cast and Double-Cast Fibers	Oral Presentation 48 (157117198) A Methodology to Comprehend the Features Importance in Hybrid RSA Using ML	Oral Presentation 50 (157117275) Structural and Spectroscopic Properties of Nd-doped YAG microsize Single Crystals	BRICS Meeting
15:05 - 15:20	Oral Presentation 52 (157117274) Theoretical Investigation of Transverse Mode Instability in Yb:PCF Due to Thermally-Induced Mode Coupling	Oral Presentation 53 (157116934) Power Allocation-based CD Estimation in IMDD Systems with Transmitter Precompensation	Oral Presentation 54 (157117047) Dynamics of Dual Pumped Kerr Frequency Combs	BRICS Meeting
15:20 - 15:35	Oral Presentation 56 (157117244) Stimulated Brillouin Scattering Fiber Ring Laser Synthesizing 10.9 GHz Low-Noise Microwave Continuous Wave Signal)	Oral Presentation 57 (1571169734-R) PoF System for BSG Smart Farming Applications)	Oral Presentation 58 (157116724) Diphenylamine microcavities self-assembly control: geometric confinement, electric field and recrystallization effects)	BRICS Meeting
15:35 - 15:50	PR	Coffee Break		
15:50 - 17:30	PR	Poster Session		
17:30 - 18:30	PL	Assembly		
20:00 - 22:00	RESTAURANT	Dinner		

Wednesday, 24th September				
8:30 - 8:15	PL	Plenary Session 7 - Optical Communication - Paulo Monteiro (Universidade de Aveiro - Portugal)		
8:15 - 10:00	PR	Plenary Session 8 - Sensors, Image and Illumination - Luciano R. P. Kassab (Faculdade de Tecnologia de São Paulo - Brasil)		
10:00 - 10:30	PR	Coffee Break		
10:30 - 10:50	Agri-photonics and Sustainability Session 2 (PL)	Optics and Instrumentation Session 2 (ROOM 1)	Optical Communication Session 3 (ROOM 2)	4th Photonics Industry and Entrepreneurship Workshop (ROOM 3)
10:50 - 11:05	Invited Talk 14 - Anderson Caires (Application of Chiroptical Fluorescence in Agri-photonics) - UFMS/Brazil)	Invited Talk 15 - Miguel Venegas - Molecular Vista Inc (BioSpec School)	Invited Talk 16 Brian Pinheiro da Silva (An Overview of Free-Space Optical Links in Brazilian Quantum Network)	Photonics Innovation and Business 5
11:05 - 11:20	Oral Presentation 60 (157117409) Fluorescence Image Processing and Machine Learning Models for Early Detection of Plant Stress)	Oral Presentation 61 (157116530) Design of Oxide/Metal-Hydrate Plasmonic Devices Based on D-shaped Optical Fibers for H2 Sensing)	Oral Presentation 62a) (157117003) Multi-criteria evaluation of Bi-LSTM Recurrent Neural Network for Nonlinear Compensation in Digital Coherent Optical Systems)	BRICS Meeting
11:20 - 11:35	Oral Presentation 64 (157117184) Laser-Induced Fluorescence Spectroscopy on Cotton Leaves for Early Detection of Nematode Infestation)	Oral Presentation 65 (157115859) Random Forest for chalcogenide glasses: A data-driven method for predicting the nonlinear refractive index	Oral Presentation 62b) (157116935) Anomaly detection in fiber based distributed acoustic sensing systems employing autoencoders)	BRICS Meeting
11:35 - 11:50	Oral Presentation 68 (157116886) Early Diagnosis of Nematode Attack in Cotton Plants Using Photonic Techniques)	Oral Presentation 69 (157117338) Second-Harmonic Generation of Beams with Stochastic Structures)	Oral Presentation 66 (157117214) Analysis of Optical Propagation Delay as a Limiting Factor in 5G Quantum Frontiers)	BRICS Meeting
11:50 - 12:05	Oral Presentation 72 (157117142 - Pb calibration using DP-LIBS in tomato cultivation)	Oral Presentation 73 (157117345) Development of a Fluorescence Imaging Platform for Greenhouse Applications)	Oral Presentation 70 (1571169048) Tunable Optical Frequency Comb Generation Applied to DWDM and 5G Networks)	BRICS Meeting
12:05 - 12:30	RESTAURANT	Lunch		
13:30 - 14:00	PL	Talk: Keylight		
14:00 - 14:20	Sensors, Image and Illumination Session 2 (PL)	Biophotonics Session 3 (ROOM 1)	Lasers Session 3 (ROOM 2)	4th Photonics Industry and Entrepreneurship Workshop (ROOM 3)
14:20 - 14:35	Invited Talk 17 - Marcelo Vieira Sgado - UFES	Invited Talk 18 - Kassia Lima, Universidade Federal do Rio Grande do Norte (BioSpec School)	Invited Talk 19 - Nison Dias - IPEX (Implementation of an ultra-high intensity laser multibeam facility in Brazil)	Photonics Innovation and Business 6
14:35 - 14:50	Oral Presentation 76 (157117450) Electrostatically driven soft device with embedded optical fiber for generating 3D brain fiber from MRI based on FastSurfer)	Oral Presentation 77 (157117248) EasyBrainGen: An Easy-To-Use Automated Workflow for Generating 3D Brain Fiber from MRI based on FastSurfer)	Oral Presentation 78 (157116149) Nanosecond Thermoelastic Waves Detection in Optical Material by Pulsed Thermal Mirror and Thermal Lens Methods)	BRICS Meeting
14:50 - 15:05	Oral Presentation 80 (157117244) Dissipative Optical Sensor based on a Photonic Molecule with U-shaped Feedback Waveguide)	Oral Presentation 81 (157117279) Nonlinear microscopy imaging and automated analysis allow evaluation of changes in collagen fibers in melanoma)	Oral Presentation 82 (157116768) Effect of Quantum Dot Passivation on Hybrid Perovskite Photocatalytic Activity of Optical Pump-Terminated Probe)	BRICS Meeting
15:05 - 15:20	Oral Presentation 84 (157116926) Continuously monitoring the Biological Oxygen Demand of effluents by optically determining)	Oral Presentation 85 (157116901) Evaluating Skin Tone Classifications through Simulated Optical Properties)	Oral Presentation 86 (157116974) Blade-coated graphene oxide onto D-shaped fiber as a saturable absorber for femtosecond pulse generation)	BRICS Meeting
15:20 - 15:35	Oral Presentation 88 (157117396) Characterizing Supermode Overlaps in Coupled Microresonators through Kerr and Thermal)	Oral Presentation 89 (157117396) Single oxygen generation by a single spot nanoparticle: a two-photon colorimetric microscopy quantification)	Oral Presentation 90 (157117231) Laser-Assisted Deposition of Carbon Nanotubes in Optical Fibers with Multiparameter Control)	BRICS Meeting
15:35 - 15:50	Oral Presentation 92 (157116833 - Light simulated atmosphere-dependent neuroimaging device)	Oral Presentation 93 (1571162948) Impact of Occupational Activities on Pigeonpox)	Oral Presentation 94 (157117278) High SSM Reconstruction of Computer-Generated DP-Axis Histograms Using Neural Networks)	BRICS Meeting
15:50 - 16:00	PR	Coffee Break		
16:00 - 17:00	PL	Closing Session		