BIOAM-2018 PROGRAM

OCTOBER, 25th, 2018

8:00 – 9:00	**REGISTRATION, COFFEE**	
SESSION I	Chair **Tatiana NOVIKOVA**, LPICM, CNRS, Ecole polytechnique, France	
9:00-9:10	**Benoit DEVEAUD** Vice-President for Research, Ecole polytechnique, France	Welcome address
9:10-9:50	**Miguel ALONSO** Marseille University, Institut Fresnel, Ecole Centrale Marseille, France	Structured Gaussian beams: ray and wave pictures (**Plenary**)
9:50-10:30	**Olga KOROTKOVA** Department of Physics, University of Miami, Florida, USA	Synthesis of random beams carrying OAM. Light propagation in soft bio-tissues (**Plenary**)
10:30-11:00	**COFFEE BREAK**	
SESSION II	Chair **Enric GARCIA-CAUREL**, LPICM, CNRS, Ecole polytechnique, France	
11:00-11:30	**Natalia KUNDIKOVA** South Ural State University, Chelyabinsk, Russia	Influence of thin film parameters on the reflection of light beam with an angular momentum (**Invited**)
11:30-12:00	**Marc GUILLON** University Paris Descartes, Sorbonne Paris Cité, Paris, France	Using optical vortices in speckles for compressed 3D super-resolution imaging (**Invited**)
12:00-12:20	**Svetlana KOTOVA** Lebedev Physical Institute, Samara, Russia	Application of spiral beams in optical micromanipulation and 3D imaging
12:20-13:20	**LUNCH BREAK**	
13:20-14:00	**VISIT TO ECOLE POLYTECHNIQUE MUSEUM (1st group)**	
SESSION III	Chair **Miguel ALONSO,** Marseille University, Institut Fresnel, Ecole Centrale Marseille, France	
14:00-14:30	**David MALUENDA** Universitat Complutense de Madrid, Madrid , Spain	Performance of general tightly focused beams after linear polarizers (**Invited**)
14:30-14:50	**David ALLIOUX** Cailabs, Rennes, France	Generating and Multiplexing Highly Selective Orbital Angular Momentum with Multi-Plane Light Conversion
14:50-15:10	**Oriol ARTEAGA** Department of Applied Physics, Universitat de Barcelona, Spain	Separating photons by spin with the method of A. Fresnel
15:10-15:40	**COFFEE BREAK**	
SESSION IV	Chair **Olga KOROTKOVA,** Department of Physics, University of Miami, Florida, USA	
15:40-16:10	**Roman NOVIKOV** CMAP, CNRS, Ecole polytechnique, France	Monochromatic inverse scattering without phase information (**Invited**)
16:10-16:40	**François GOUDAIL** Institut d'Optique Graduate School, CNRS, Université Paris-Saclay, Palaiseau, France	Optimal estimation of polarimetric parameters under different types polarimeter architectures and noise sources (**Invited**)

16:40-19:00	**POSTER SESSION, WELCOME COCKTAIL**

OCTOBER, 26th, 2018

SESSION V	Chair **Igor MEGLINSKI**, Laboratory of Opto-Electronics and Measurement Techniques, University of Oulu, Finland	
9:00-9:30	**Marie-Claire SCHANNE-KLEIN** LOB, Ecole polytechnique, CNRS, INSERM, Palaiseau, France	Implementation of fast polarization-resolved SHG imaging to monitor dynamic collagen reorganization during skin stretching (**Invited**)
9:30-10:00	**François HACHE** LOB, Ecole polytechnique, CNRS, INSERM, Palaiseau, France	Folding/unfolding dynamics of DNA G-quadruplexes studied by time-resolved circular dichroism (**Invited**)
10:00-10:30	**Jihad ZALLAT** ICube laboratory, University of Strasbourg, Illkirch, France	The genesis of cancer. Monitoring of tumor progression by spectro-polarimetric imaging (**Invited**)
10:30-11:00	**COFFEE BREAK**	

SESSION VI	Chair **Anabela DASILVA,** Aix Marseille University, CNRS, Centrale Marseille, Institut Fresnel, Marseille, France	
11:00-11:30	**Igor MEGLINSKI** Laboratory of Opto-Electronics and Measurement Techniques, University of Oulu, Finland	The dawn of innovations in screening of biological tissues by using structured light with optical angular momentum (**Invited**)
11:30-12:00	**Angel LIZANA,** Department of Physics, Autonomous University of Barcelona, Spain	Application of the Indices of Polarimetric Purity in biophotonics (**Invited**)
12:00-12:30	**Jessica RAMELLA-ROMAN** Florida International University, Miami, USA	Assessment and modeling of anisotropic biological tissue properties with Mueller matrix polarimetry (**Invited**)
12:30-13:30	**LUNCH BREAK**	
13:30-14:00	**VISIT TO ECOLE POLYTECHNIQUE MUSEUM (2nd group)**	

SESSION VII	Chair **Oriol ARTEAGA**, Department of Applied Physics, Feman Group, Universitat de Barcelona, Spain	
14:00-14:30	**Etienne BRASSELET** University of Bordeaux, CNRS, LOMA, Talence, France	Geometric phase flat-optics from inhomogeneous chiral anisotropic media for versatile shaping of polychromatic light fields (**Invited**)
14:30-15:00	**Sylvain GIGAN** Kastler-Brossel Laboratory, ENS, Sorbonne University, CNRS, Collège de France, Paris, France	Multispectral and temporal control of light in multiple scattering media (**Invited**)
15:00-15:30	**Nirmalya GHOSH** Indian Institute of Science Education and Research, Kolkata, India	Spin optical effects in plasmonics (**Invited**)
15:30-16:00	**COFFEE BREAK**	

SESSION VIII	Chair **Natalia KUNDIKOVA**, South Ural State University, Chelyabinsk, Russia	
16:00-16:20	**Chris STURM** Felix-Bloch-Institut für Festkörperphysik, Universität	Determination of the pseudo-gyration tensor of KTP by ellipsometry

	Leipzig, Germany	
16:20-16:40	**Anabela DASILVA** Aix Marseille University, CNRS, Centrale Marseille, Institut Fresnel, Marseille, France	Diffuse reflectance spectroscopy with polarization gating
16:40-17:00	**BEST STUDENT PAPER AWARD CEREMONY (SPONSORED BY OSA)** **CLOSING REMARKS**	
17:00-19:00	**WINE AND CHEESE PARTY**	

POSTER SESSION

Sergey SAVENKOV, Taras Shevchenko National University of Kyiv, Ukraine	Polarization memory in inhomogeneous elliptical birefringent medium
Darya PROKOPOVA, Lebedev Physical Institute, Samara, Russia	Optimization of phase masks for 3D fluorescence nanoscopy
Mariia BOROVKOVA, Laboratory of Opto-Electronics and Measurement Techniques, University of Oulu, Finland	Towards screening of brain malformations with circularly polarized light
Margaux SCHMELTZ, LOB, Ecole Polytechnique, CNRS, INSERM, Palaiseau, France	Quantitative assessment of parchment degradation by Polarization-resolved Second Harmonic Microscopy
Hee Ryung LEE, LPICM, CNRS, Ecole polytechnique, Palaiseau, France	Digital histology with Mueller polarimetry
Arvid LINDBERG, LPICM, CNRS, Ecole polytechnique, Palaiseau, France	Innovative and high-performance instrumentation for biomedical Mueller polarimetric imaging in vivo
Briséis VARIN, ICube laboratory, University of Strasbourg, Illkirch, France	Dermapol, an innovative spectro-polarimeter optical biopsy tool for real-time skin cancer diagnosis
Andrea FERNÁNDEZ, University of Cantabria, Santander, Spain	Modelling the adhesion of a spherical particle to a substrate with geometric optics and polarimetry.
Thomas Sang Hyuk YOO, LPICM, CNRS, Ecole polytechnique, Palaiseau, France	Effect of Geometric Phases in the Polarimetric Response of Small Particles Illuminated at Oblique Incidence
Meredith KUPINSKI, College of Optical Sciences, Univ. of Arizona, Tucson, USA	Polarimetric data post-processing for pre-cancer detection from uterine cervix specimens
David MARCO, Inst. de Bioingeniería, Univ. Miguel Hernández de Elche, Spain	Generation of polychromatic vector beams with a tunable Q-plate
Joséphine MORIZET, LOB, Ecole polytechnique, CNRS, INSERM, Palaiseau, France	High-speed polarization-resolved Third Harmonic Generation Microscopy applied to the characterization of molecular order in lipid assemblies and in biomaterials
Albert VAN EECKHOUT Department of Physics, Autonomous University of Barcelona, Spain	Use of IPPs Indicators to identify and classify tissues