

IN THE FRENCH HEARTLAND COMPETITIVITY IN PHOTONICS



Close to the Mediterranean sea, Provence Alpes Cote d'Azur area is one of the major regions in France and in Europe for optics and photonics with companies like Alcatel Alenia Space, Cybernetix, Eurocopter, SESO... Around them, one finds famous laboratories like the Institut Fresnel, the Laboratoire d'Astrophysique de Marseille, the Observatoire de la Côte d'Azur, the LP3 or the Ifremer which all contribute to the development of components and optical systems.



The Provence-Alpes-Côte d'Azur and Languedoc Roussillon regions count more than one hundred companies and more than thirty laboratories working in the field of optics and photonics (14 500 jobs including 5 500 researchers). It can lean on several Universities or grandes écoles providing education in optics and photonics at all levels. The South of France represent 30% of French R&D in optics.



Strongly connected with the micro and nano-technologies and with image processing and software engineering, optics and photonics have, in Provence, all the competences (electronics, mechanics, software, micro and nano-technologies) to favor their development.



The large scientific and industrial equipments available in south of France are a complementary key of success. We have a label of Competitiveness Clusters Photonics : Optical and imaging complex systems (OPTITEC).

For more information

www.popsud.org
<http://spie.org/optical-systems-design.xml>



OCS 2011 Meeting will be held in the Marseille-Provence World Trade Center of Marseille. It is located at the heart of the Phoenician city and a short walk from the Vieux Port. Its' location



at the crossroads of the motorway network, 5 minutes from the SNCF main railway station and 20 minutes from the Marseille-Provence airport puts it in an ideal position.



ABOUT MARSEILLE

*The metropolis in the southeast of France and even more so the Mediterranean Basin. It was founded around 600 BC by Greek sailors from Phocaea in Asia Minor, which is why it is still called the "Phocaeen City" today.

*A city of many attractions: the sea, the sun, nature and culture. Marseille is also proud of its strong tradition of accessibility and its people's warm hospitality.

* A land of varied and stunning landscapes. From the Vieux-Port to

Calanques to the "Bonne Mère" basilica, natural green spaces stretch as far as the eye can see around the city and traces of its rich history are everywhere in its architecture, culture and the people who live there.

For information on sightseeing and tourist information, please visit the Marseille Tourism website:

www.marseille-tourisme.com/en/in-marseille/

www.wtc-marseille-provence.com/anglais/indexgb.asp



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CALL FOR PAPERS

OCS'11

Optical Complex Systems 2011

In collocation with the SPIE International Symposium
On Optical Systems Design

- September 5-8th 2011
- World Trade Center/Mercure Hotel
- Marseille, France

Abstract Due Date : 7th March 2011
Manuscript Due Date: 18th August 2011



Optical Complex Systems 2011 will be an extraordinary conference to take stock of research and industrial applications in various fields such as Biophotonics & Biomedical optics, Optical Systems for sciences of the Universe or Photonics for safety, security & environment.

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ORGANISATION

This third edition of the Optical Complex Systems conference will be held in Marseille, from September 5 to 8th 2011, co-organized by SPIE and POPSud cluster (Pole Optique & Photonique Sud) who has always supported the OCS conference series since its foundation.

The objective of OCS 2011 is to provide a forum for researchers, engineers, and government officials involved in the general areas of Optical Systems. It will help them to disseminate their latest results and exchange views on the future research directions and applications of this field.

This meeting will cover experimental and theoretical aspects of this rapidly developing field, from fundamental science to applications and products. Both scientific and engineering challenges in optical systems will be addressed with a highlighted focus on cross disciplinary applications.

OCS 2011 conference will address all research areas in which photonic technologies are applied to enhancement of optical systems and innovation. Novel approaches regarding algorithms, numerical simulations and modelling are also of considerable interest for optical systems and will be considered for this edition.

Local Organizing Committee:

Katia Mirochnitchenko, Marjorie Maunier, Jocelyne Darietto, Laetitia Clavé.

Contributions are welcomed from Industrial Companies and Academic Research.

KEY TOPICS

- **Biophotonics & Biomedical optics** (Paul Lecoq) : New developments in the field of clinical diagnostics and treatment, as well as of research in biology based on optical systems. This includes in particular fluorescence and bioluminescence imaging, OCT, optical nanoprobe, Raman, CARS, imaging in diffuse media, photoacoustics, confocal microscopy, laser treatments and surgery, etc...
- **Optical Systems for sciences of the Universe** (Marc Ferrari): Sciences of the Universes range from Cosmology and detections of Primordial Galaxies to search for Extra-solar planets and signs of life, but also includes Geophysics and Earth environmental observation. This session will focus on recent developments for Space and Earth observations.
- **Photonics for safety, security & environment** (François Flory) : Green photonics offers new solutions for sustainable development. Photovoltaics, New lighting solutions, photonics for material sorting and resourcing, video surveillance, earth watch, capture and image recognition, and sensors for security and environment,... are important topics with societal and economical development.
- **Quantum Communication & Processing, Systems and Components** (Marc de Micheli) : Quantum bits of information offer new means to encode information on photonic or atomic carriers. Quantum information systems, involving quantum key distribution protocols, single and entangled photon sources, stabilized lasers and interferometers, quantum memories, photon counters, integrated optics quantum circuits, etc., are important topics that could dramatically impact the way information is processed and communicated.
- **Extreme laser systems & optics for hostile environment** (Jean Marcel Travère) : Femtolasers, high power lasers, excimer lasers - applications such as nanotechnologies, microelectronics, cleaning, instrumentation, energy & optics for remote control and observation within hostile environments with extreme conditions (temperature, radiations, pressure, mechanical perturbations, limited space ...) - applications such as submarine exploration, nuclear environment control or space based observations.

Confirmed keynote speakers :

Alexander V. Kildishev, Purdue University (USA)
Cheng Chung Lee, National Central University (Taiwan)
Alexei Maradudin, University of California - Irvine (USA)
Vasilis Ntziachristos, Institute for Biomedical and Medical Imaging in München (Germany)
Alexander B. Shvartsburg, Joint Institute of High Temperatures, RAS (Russia)

SCIENTIFIC COMMITTEE

General Chairman : Gérard Berginc, Thales (France)

Antoine Bourelly (Pellenc Selective Technologies-France) ; Greg Gbur (University of North Carolina-USA) ; Jean-Michel Decaudin (Light Technologies-France) ; Aristide Dogariu (The College of Optics and Photonics University of Central-Florida USA) ; Marc Ferrari (Laboratoire d'Astrophysique de Marseille-France) ; François Flory (Ecole Centrale de Marseille-France) ; Hugues Giovannini (Institut Fresnel-France) ; Danhong Huang (Air Force Research Laboratory-USA) ; Alexander V. Kildishev, (Purdue University-USA) ; Demetrio Labate (SELEX Galileo-Italy) ; Paul Lecoq (CERN-Suisse) ; Kai Lenfert (Kayser-Threde-Germany) ; Alexei Maradudin (University of California - Irvine USA) ; Eugenio Mendez (CICESE-Mexico) ; Marc de Micheli, (Université de Nice/CNRS, Lab. LPMC-France) ; Vasilis Ntziachristos (Institute for Biomedical and Medical Imaging in München-Germany) ; Angela Piegari (ENEA-Italy) ; Alexander B. Shvartsburg (Joint Institute of High Temperatures, RAS-Russia) ; Igor I. Smolyaninov (University of Maryland-USA), Sébastien Tanzilli (Université de Nice/CNRS, Lab. LPMC-France) ; Jean-Marcel Travère (CEA-France).

Abstract Due Date : March 7th 2011
Manuscript Due Date : August 18th 2011