European Optical Society
Annual Meeting

EOSAM 2012 moves to Aberdeen

EOS Annual Meeting (EOSAM 2012)

25 - 28 September 2012

Aberdeen Exhibition and Conference Centre, Scotland (GB) | www.myeos.org/events/eosam2012

Final Announcement & Call for Papers

Abstract deadline extended to 20 May 2012

Sponsors

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Foreword

Dear colleagues,

Launched in 2006, and since hosted every even year by the OPTO exhibit in Paris, the EOS Annual Meeting (EOSAM) has established itself as a major European event for our Optics & Photonics community with more than 600 attendees.
This year, for the fourth EOSAM, our Board unanimously decided to move to Aberdeen in Scotland, to reflect our desire to reach out into the wider European optical community and broaden our appeal to those not directly connected with us. Located on the North Sea coast, Aberdeen is the centre for Europe's oil and gas industry, and is now the focus of Scotland's blossoming renewable energy industry; it has a rich and inspiring industrial and maritime pedigree. The Aberdeen Exhibition and Conference Centre (AECC) is a world-standard venue and offers many attractive meeting facilities and is renowned for the quality of its service and its cuisine. The exhibition which will be featured in EOSAM 2012 will enable our members to interact with a new client set.
Outwith the conference, there is much to see and do in the City and in the surrounding Aberdeenshire. In the "Granite City" itself there is much to explore, from the granite facade of Union street and Scotland's third oldest University (founded in 1495) to its dynamic modern arts and culture scene. There are many fine restaurants offering everything from pizza to seafood to, of course, Aberdeen Angus steaks! In the Shire you will find Scotland's largest national park (The Grampians), a dramatically imposing coastline and the famous "whisky" and "castle" trails.
EOSAM 2012 will be composed of seven Topical Meetings (TOMs) including two new subjects, Silicon Photonics (TOM 2) and Optical Systems for the Energy and Production Industries (TOM 7). In addition, our Grand Challenges of Photonics session will be renewed and, for the first time, EOS will organize its own exhibition with a particular emphasis on offshore applications, the core industrial activity of Aberdeen.
Join EOSAM 2012 and present your research in Aberdeen, "the energy capital of Europe"! Aberdeen offers you the traditional Gaelic greeting of "Ceud Mille Failte" – a hundred thousand welcomes.

Hervé Lefèvre, Paul Urbach and John Watson

General Chair
Hervé Lefèvre
iXBlue (FR)

Deputy General Chair
Paul Urbach
TU Delft (NL)

Local Chair
John Watson
University of Aberdeen (GB)

OVERVIEW: EOSAM 2012 AT A GLANCE

- 7 Topical Meetings:
  - TOM 1 - Biophotonics
  - TOM 2 - Silicon Photonics
  - TOM 3 - Nanophotonics & Metamaterials
  - TOM 4 - Micro-Optics
  - TOM 5 - Organic Photonics & Electronics
  - TOM 6 - Nonlinear Photonics
  - TOM 7 - Optical Systems for Energy & Production Industries
- Workshop on Continuing Education: Short courses for industry
- Grand Challenges of Photonics Session
- Exhibition focusing on photonics for offshore applications ("blue photonics"®), biomedical photonics, organic optoelectronics, micro-optical components and systems

TOM 1 - BIOPHOTONICS

Optical Manipulation and OCT Imaging in Life Sciences and Medicine

In biophotonics optical tools are employed for the understanding and treatment of diseases, from the cellular level to macroscopic applications. At the cellular level, highly precise laser applications allow the manipulation, poration or stimulation of cells, even in living organisms or animals, like for example in optogenetics. Using fusion proteins, precise imaging and, in case of channelrhodopsin, precise switching of living cells in their environment is enabled and allows a deeper understanding of cellular processes. Furthermore, optical microscopy has been revolutionised by a thorough understanding of the different markers and their switching behaviour. Marker-free microscopy, like CARS, SHG or THG-microscopy is spreading into multiple biological and clinical imaging applications. Combination with microfluidics and chip-based technologies enables high-throughput for screening or manipulation applications.

Optical Coherence Tomography (OCT) is continuously broadening its clinical applicability by even higher resolution, higher speed and more compact or fibre-based probes and the use of Doppler and polarization sensitivity for functional imaging. The combination of these OCT capabilities with (nonlinear) microscopic techniques, fluorescence and laser surgery techniques provides excellent opportunities in clinical applications. Multifunctional catheters are needed for different clinical areas to accommodate the ever increasing acquisition speeds.

This Topical Meeting aims at covering several aspects from the fundamental studies at the cellular level to clinical applications of various optical technologies.

TOPICS

- Optical control of cells, optogenetics
- Photoporation
- Biomarkers for optical techniques
- Studies of cells and single molecules
- Lab-on-a-chip optofluidic devices
- Microfluidic biosensors

- Fabrication technologies for optofluidics
- Optical Coherence Tomography technical advances, functional OCT, catheter development
- Optical Coherence Tomography in clinical practice, translational research
- Optical Coherence Tomography in ophthalmology

CHAIRS

- Gert von Bally, Westfaelische-Wilhelms-Universitaet Muenster (DE)
- Johannes de Boer, VU University Amsterdam (NL)
- Alexander Heisterkamp, Friedrich-Schiller-University Jena (DE)

PROGRAMME COMMITTEE

- Samuel H. Chung, Boston University (US)
- Claudia Geisler, MPI for Biophysical Chemistry (DE)
- Robert Huber, Ludwig-Maximilians-Universitaet Muenchen (DE)
- Gereon Huettmann, University of Luebeck (DE)
- Martin Leahy, National University of Ireland (IE)
- Michael Pircher, Medical University of Vienna (AT)

PLENARY SPEAKER

- Susana Marcos Celestino, Consejo Superior de Investigaciones Científicas - CSIC (ES)

INVITED SPEAKERS

- Frank Gunn-Moore, St. Andrews University (GB)
- Martin Leahy, National University of Ireland, Galway (IE)
- Rainer Leitgeb, Medical University of Vienna (AT)
- Hugo Murua Escobar, University of Veterinary Medicine Hannover (DE)
- Francesco Pavone, European Laboratory for Non-Linear Spectroscopy (LENS) (IT)

TOM 2 - SILICON PHOTONICS

Novel developments and applications in the field of silicon photonics and related areas, ranging from optical interconnects to sensing applications will revolutionise conventional microelectronics. Potential topics include, but are not limited to the design, simulation, modeling and fabrication of optical interconnects (board-to-board, chip-to-chip or on-chip), e.g. active optical cabels (AOCs), optical on-chip routing architectures, clock distribution and technologies as well as related design concepts for high speed, low power photonic integrated circuits (PICs). Also (CMOS-compatible) optical sources and detectors and the optimization of light emission and absorption for data processing using materials such as SiGe or III/Vs etc. will be discussed. Advanced monolithic or hybrid processing techniques for the fabrication of photonic structures on Si such as 3D-Laser-lithograhy, nano-imprint techniques or self assembly will be considered. Following the developments described above, optical on chip data processing all the way to optical computing may lead to disruptive technologies to be discussed at this Topical Meeting.

TOPICS

- Design, simulation, modeling and fabrication of photonic structures, components and devices for Si-photonics and related materials
- Optical interconnects ranging from optical board to board cables to on-chip routing architectures and data processing technologies*
- Design concepts especially for high-speed, low power photonic integrated circuits (PICs)
- Monolithic or hybrid (CMOS-compatible) optical sources and detectors for data processing using SiGe, III/V compounds or alternative materials
- Concepts for optical computing
- Monolithic or hybrid techniques for the fabrication of photonic structures on Si (e.g. 3D-laser-lithograhy, nanoimprint techniques, self assembly etc.)
- Developments in nanophotonic materials with tailored optical properties for Si-Photonics*
- Assembly and packaging techniques
- Future concepts for manufacturing Si-photonics (e.g. foundry concepts or alternative approaches)

* Joint session with TOM 3

CHAIRS

- Ralf B. Bergmann, BIAS (DE)
- Alberto Garcia-Ortiz, University of Bremen (DE)
- Graham T. Reed, University of Southampton (GB)

PROGRAMME COMMITTEE

- Mario Bertolotti, Università La Sapienza (IT)
- José Capmany, Universidad Politecnica Valencia (ES)
- Laurent Fulbert, CEA-LETI (FR)
- Christine Harendt, Institut Fuer Mikroelektronik Stuttgart (DE)
- Thomas F. Krauss, University of St. Andrews (GB)
- Malgorzata Kujawinska, Warsaw University of Technology (PL)
- Walter Lang, IMSAS (DE)
- Stefan Maier, Imperial College London (GB)
- Lorenzo Pavesi, University of Trento (IT)
- Klaus Petermann, TU Berlin (DE)
- Roberta Ramponi, Politecnico di Milano (IT)
- Concita Sibilia, Università La Sapienza (IT)

PLENARY SPEAKER

- Mike Wale, Oclaro Technology (GB)

INVITED SPEAKERS

- Massimo Cazzanelli, University of Trento (IT)
- David Cumming, Glasgow University (GB)
- Fred Gardes, University of Southampton (GB)
- Robert W. Kelsall, University of Leeds (GB)
- Juerg Leuthold, Karlsruhe Institute of Technology (KIT) (DE)
- Douglas J. Paul, University of Glasgow (GB)
- Laurent Vivien, Université Paris Sud (FR)

TOM 3 - NANOPHOTONICS & METAMATERIALS

Both nanophotonics and optical metamaterials rely on our understanding of light-matter interaction on the nanoscale. Recent developments in this broad field are based on nanostructured dielectrics, semiconductors and metals and lead to applications and devices in which electromagnetic fields can be generated, manipulated and controlled in sub-wavelength structures. Nanophotonics and metamaterials pave the way to many novel applications in various technological areas spanning from biosensing and high-resolution imaging to optical information processing and energy harvesting. This Topical Meeting will cover all experimental and theoretical aspects of light interaction with nanoscale objects and nanostructured materials, new optical properties of nanostructured matter and their applications.

TOPICS

- Photonic crystals and wires, optical microcavities
- Quantum dots and their applications
- Optical interconnects and silicon photonics*
- Nanostructured metal surfaces, plasmonic guides and crystals
- Optical antennas
- Quasiperiodic and random photonic systems

- Negativ and zero-refractive index and other metamaterial concepts
- Active and tunable optical metamaterials
- Electromagnetic field confinement and enhancement
- Quantum and nonlinear optics in nanostructures
- Near-field microscopy and high-resolution optical imaging
- Nanomanipulation with light
- Nanophotonics for energy conversion applications
- Nanophotonics for bio- and chemo-sensing applications
- Theory and modelling for nanophotonics and metamaterials

* Joint session with TOM 2

CHAIRS

- Concita Sibilia, Università La Sapienza (IT)
- Anatoly Zayats, King's College London (GB)

PROGRAMME COMMITTEE

- Mario Bertolotti, Università La Sapienza (IT
- Alexandre Bouhelier, Université de Bourgogne (FR)
- Nikolai Gaponik, Technical University of Dresden (DE)
- Harald Giessen, University of Stuttgart (DE)
- Maria Kafesaki, Foundation for Research and Technology Hellas (FORTH) (GR)
- Philippe Lalanne, Institut d'Optique (FR)
- Cefe López, CSIC (ES)
- Stefan Maier, Imperial College London (GB)
- Fabrice Raineri, LPN-CNRS (FR)
- Graham T. Reed, University of Surrey (GB)

PLENARY SPEAKER

- Nader Engheta, University of Pennsylvania (US)

INVITED SPEAKERS

- Hatice Altug, Boston University (US)
- Fabio Bovino, SELEX (IT)
- Kurt Busch, Humboldt-Universitaet zu Berlin (DE)
- Niek van Hulst, ICFO (ES)
- Yuri Kivshar, Australian National University (AU)
- Thomas Krauss, University of St. Andrews (GB)
- Laura Na Liu, Rice University (US)
- Laurent Vivien, Université Paris Sud (FR)

TOM 4 - MICRO-OPTICS

This Topical Meeting is intended to provide an international forum for an update, review and exchange of scientific and technical breakthroughs and information covering a wide range of topics within the field of micro-optics, from fundamental theory and research to applications and systems.

TOPICS

- Theory, design and modelling: Refractive and reflective optics including free-form surfaces, diffractive optics, gradient-index optics, nanostructured devices, guided wave optics, nonlinear optics, photonic band, slow light, plasmonics etc.
- Materials: Dielectric materials, polymeric materials, nonlinear materials, nano-structured materials, metals, fluid elements, liquid crystals etc.
- Fabrication: Lithography and etching, diffusion and ion-exchange, nano-imprint and laser fabrication etc.
- Measurements: Interferometry, spectroscopy, reflectometry etc.
- Applications: Optical communications and optical interconnects, optical storage, displays and lighting, medical and biophotonic applications etc.
- Packaging & integration: Monolithic & hybrid packaging, 3D integration and micro-assembly etc.

CHAIRS

- Norbert Lindlein, University of Erlangen-Nuremberg (DE)
- Mohammad Taghizadeh, Heriot-Watt University (GB)

PROGRAMME COMMITTEE

- Ryszard Buczynski, University of Warsaw (PL)
- Carlos Gomez-Reino, Universidad de Santiago de Compostela (ES)
- Fredrik Nikolajeff, Uppsala University (SE)
- Olivier Parriaux, University St.-Etienne (FR)
- Stefano Pelli, IFAC-CNR (IT)
- Stefan Sinzinger, Ilmenau University of Technology (DE)
- Hans Zappe, University of Freiburg (DE)
- Uwe Zeitner, Fraunhofer Institute for Applied Optics and Precision Engineering (DE)

PLENARY SPEAKER

- Juergen Jahns, FernUniversitaet Hagen (DE)

INVITED SPEAKERS

- Robert Brunner, FH Jena (DE)
- Chauncey Graetzel, Optotune (CH)
- Philippe Lalanne, Institut d'Optique (FR)
- Christoph Marquardt, Max Planck Institute for the Science of Light (MPL)
- Olivier Parriaux, University of Lyon at Saint-Etienne (FR)

TOM 5 - ORGANIC PHOTONICS & ELECTRONICS

Organic semiconductors are a broad class of materials that comprise small molecules, conjugated polymers and carbon based nano-structures. The molecular structure of such materials in many cases permit charge transport, efficient light-harvesting, the existence of stable excitations and high fluorescence quantum efficiency; attributes vital for a number of optoelectonic applications such as light emitting diodes, photovoltaics and field effect transistors.

By defining structure at sub-micron wavelength into organic media (either semiconducting or dielectric), the interaction between light and matter can be exploited to engineer novel effects. Here, a number of target applications have been identified including optical-sensors, lasers, optical-amplifiers, fibre-based communication systems and novel coatings. Finally, the combination of organic materials with inorganic semiconductors or biological systems opens a host of future looking possibilities.

This Topical Meeting aims to provide a forum for high-level presentations that focus on the fundamental properties or use of organic semiconducting or dielectric materials in electronics or photonics. Contributions that address fundamental materials properties through optical-spectroscopy or theoretical investigations are particularly welcome. The programme will allow for open discussions among participants leading to a fruitful exchange of ideas.

TOPICS

- Spectroscopy of functional organic materials
- Organic lasers and optical amplifiers
- Organic photonics: self-assembled vs top-down patterning
- OLEDs and OLETs
- Transport and conduction in organic devices
- Spectroscopy of functional organic materials
- Photovoltaics, dye-sensitised solar cells and photodetectors
- Organic optical or electrical sensors
- Organic micro- and nano-cavities
- Hybrid organic/inorganic systems/biological devices and systems
- Theory of optical and electronic excitations

CHAIRS

- Guglielmo Lanzani, Politecnico di Milano (IT)
- David G. Lidzey, University of Sheffield (GB)

PROGRAMME COMMITTEE

- David Beljonne, Université de Mons (BE)
- Davide Comoretto, Università di Genova (IT)
- Jochen Feldmann, Ludwig-Maximilians-Universitaet (DE)
- Neil Greenham, Clare College Cambridge (GB)
- Olle Inganäs, Linkoeping University (SE)
- Rene Janssen, Eindhoven University of Technology (NL)
- Michele Muccini, ISMN-CNR (IT)
- Henry Snaith, University of Oxford (GB)
- Graham Turnbull, University of St. Andrews (GB)

- Margherita Zavelani-Rossi, Politecnico di Milano (IT)
- Joseph Zyss, Ecole Normale Superiéure de Cachan (FR)

PLENARY SPEAKER

- Giuseppe Gigli, University of Salento (IT)

INVITED SPEAKERS

- William Barford, University of Oxford (GB)
- Robert Brückner, IAPP (DE)
- Mario Caironi, CNST-IIT@Polimi (IT)
- Antonio Facchetti, Polyera Corporation (US)
- Jan Klaers, University of Bonn (DE)
- K. S. Narayan, Jawaharlal Nehru Centre for Advanced Scientific Research (IN)

TOM 6 - NONLINEAR PHOTONICS

Recent advances in nano- and micro-scale fabrication of photonic structures and materials have created a wave of research on nonlinear and quantum effects, which can happen with an unprecedented efficiency or bare previously unexpected properties. On the other hand, more traditional areas of nonlinear optics, such as fibre optics, nonlinear optics of gases and crystals, and sources of coherent radiation not only underpin these advances, but make remarkable progress in their own right.
Metamaterials and plasmonic based nanostructures compete with the semiconductor waveguides and micro-cavities for providing the best confinement of photons and for boosting strength of the light matter interaction with the aim to reduce the device footprints and to lower the threshold powers for nonlinear functionalities.
Silicon, graphene and other materials are explored intensely for nonlinear and quantum applications. Using pure light waves is currently challenged by the devices operating with coherent half-light half-matter polaritons or condensed bosons. Semiconductor lasers and their arrays demonstrate remarkable complexity of their dynamics used for information processing. Fundamental nonlinear physics in optical fibres is enjoying its renaissance through the advent of microstructured fibres.
We are inviting contributions in all these and many other fundamental and applied sub-areas of nonlinear photonics and optics.

TOPICS

- Nonlinear and quantum optics in metamaterials and nanostructures
- Semiconductor microcavities and waveguides
- Optical solitons, spatial and temporal effects
- Nonlinear optics in fibres
- Nonlinear optics with exciton-polaritons and plasmon-polaritons
- Nonlinear and quantum optomechanics; sound-light interaction
- Fundamentals and applications of nonlinear optics, materials
- Optical chaos, chaos synchronization and networks of coupled oscillators

- Nonlinear optics of graphene
- Active photonic devices and terahertz nonlinear optics

CHAIRS

- Marc Sciamanna, Supélec (FR)
- Dmitry Skryabin, University of Bath (GB)

PROGRAMME COMMITTEE

- Stéphane Barland, INLN (FR)
- Dimitri Christodoulides, University of Central Florida (US)
- Cornelia Denz, Westfaelische-Wilhelms-Universitaet Muenster (DE)
- John Dudley, Université de Franche Comté (FR)
- Dmitry Krizhanovskii, University of Sheffield (GB)
- Dragomir Neshev, Australian National University (AU)
- Gian-Luca Oppo, University of Strathclyde (GB)
- Nicolae Panoiu, University College London (GB)
- K. Alan Shore, Bangor University (GB)
- Ramón Vilaseca, Universidad Politécnica de Catalunya (ES)

PLENARY SPEAKER

- Frank Wise, Cornell University (US)

INVITED SPEAKERS (list to be completed)

- Alberto Amo, LPN (FR)
- Claudio Conti, Università La Sapienza (IT)
- Sara Ducci, Université Paris Diderot (FR)
- Guillaume Huyet, Tyndall National Institute (IE)
- Jochen Schroeder, University of Sydney (AU)
- Maurice S. Skolnick, University of Sheffield (GB)
- Alexander Szameit, Friedrich-Schiller-Universitaet Jena (DE)
- Sergei Turitsyn, Aston University (GB)

TOM 7 - OPTICAL SYSTEMS FOR THE ENERGY AND PRODUCTION INDUSTRIES

Optical systems have a proven track record of application in Europe's manufacturing and production industries. As technical developments accelerate, optical systems are becoming more and more sophisticated, and complex applications are being tackled now that would never have been considered previously. Many of these techniques are now being transferred and exploited in the oil, gas and renewable energy sectors. In this Topical Meeting we will address fundamental aspects of optical systems engineering and their application in the energy and production industries. We will discuss proven technologies but also would like to encourage authors to present their new ideas, new applications and those that extend the application of optics to its limits. We are especially interested in papers that apply optics in hazardous or difficult industrial and field environments. In the offshore oil and gas sectors, optical processing or non-destructive evaluation is beginning to gain prominence as its advantages for non-destructive or non-intrusive evaluation become better known. The renewable energy sector is beginning to bring new problems to our attention for which optical measurement and materials processing offer new solutions.
During EOSAM 2012 in Aberdeen, this Topical Meeting will complement the accompanying exhibition and provide both academics and industrialists a forum for presentation of new trends in optical systems R&D.

TOPICS

Special sessions will highlight work directly addressing the needs of the energy and production industries, and presentations from those engaged directly in these areas will be particularly welcome. Some of the technical topics that we expect to feature are listed below. Such papers should focus on their application in the energy and production industries.

- Imaging and vision:
  Ranging and range-gating; holography; structured light; laser scanning; 3D vision
- Environmental sensing:
  LIBS; Raman spectroscopy; remote sensing; bio-sensors; chemical sensors; gas sensors; pollution monitoring
- Optical metrology and mensuration:
  Holography; PIV; LDA; structural health monitoring; optical NDT; fibre sensing
- Optics in difficult and hazardous environments:
  Optics in the oil and gas industry; optics in "dirty" environments; decommissioning of offshore structures; monitoring of underwater structures; applications in marine biology; distributed sensors; flow-line monitoring
- New developments in materials processing:
  Decommissioning of offshore structures; laser cutting/welding of pipelines; surfacing technologies
- Novel techniques and future technologies:
  Your breakthrough idea that will change the optical systems world!

CHAIRS

- John Watson, University of Aberdeen (GB)
- Werner Jueptner, University of Aberdeen (GB) and BIAS (DE)

PROGRAMME COMMITTEE

- Nicholas Burns, Aberdeen University (GB)
- Frank Caimi, Harbor Branch Oceanography Institute (US)
- Victor Dyomin, Tomsk State University (RU)
- Claas Falldorf, BIAS (DE)
- Peter Hobson, Brunel University (GB)
- Johannes Kiefer, Aberdeen University (GB)
- Daniel McStay, MCSC Ltd (GB)
- Oliver Zielinski, University of Oldenburg (DE)

PLENARY SPEAKER

- Craig McLean, NOAA (US)

INVITED SPEAKERS

- Brian Drakeley, Weatherford International (US)
- Daniel McStay, MCSC Ltd (GB)
- Gleb A. Turichin, St. Petersburg State Technical University (RU)
- Oliver Zielinski, University of Oldenburg (DE)

WORKSHOP ON CONTINUING EDUCATION: SHORT COURSES FOR INDUSTRY

Continuing education is an essential need in modern society, in particular for those involved with new technologies. Optics and photonics are no exceptions. There is a constant need to train and retrain optical engineers who have existing professional experience, but need to adjust to new technologies or broaden their scope to increase their capacity for innovation. The challenge in optics and photonics, in fact, is broader than in some

other domains, because of the considerable diversity of optical technologies and of the many fields of applications. This one-day workshop will gather together training providers, employers and potential trainees with various experience of the process of continuing education. Ideas will be shared to boost initiatives, by discussing the following issues:

- At which levels should continuing education focus?
- How short should a short course be?
- If it is clear that the need exists, how can the finances be secured to fill the need?
- How do you organise homogeneous groups of attendees, and how important is it to do so?
- Given constraints on time and financial means, how can the organisations offering training best adjust to the needs of the employers: distance to be travelled, language requirements, group size, etc.?
- How important is it that these courses offer continuing education credits?
- Where is the distinction between continuing education and consulting?
- Compared to other parts of the world, is there one European model of continuing education in Optics and Photonics, should there be one, and what are the currently prevailing models in various parts of Europe?

CHAIRS

- Pierre Chavel, Institut d'Optique (FR)
- Chris Dainty, National University of Ireland (IE)
- Paul Urbach, Technical University of Delft (NL)

INVITED SPEAKERS (list to be completed)

- Pablo Benitez, Universidad Politécnica de Madrid (ES)
- Jean-Louis Meyzonnette, Institut d'Optique (FR)
- Laurent Sarger, Université Bordeaux I and Elisabeth Boéri, PYLA–ALPHANOV (FR)
- Martin Sharp, Association of Industrial Laser Users (GB)
- Ilka Zajons, LZH Laser Akademie (DE)

EOSAM 2012 DATES & DEADLINES

Opening of the registration:	4 June 2012
Publication of the Advance Programme:	15 June 2012
Early-bird registration deadline:	24 June 2012
Advanced registration deadline:	31 July 2012

ABSTRACT SUBMISSION

Opening of submission: 2 April 2012
Deadline for abstract submission: 20 May 2012
Notification to authors: 8 June 2012

Abstracts can only be submitted online via **www.myeos.org.**

Authors are requested to submit an extended abstract of a minimum of one page and a maximum of two pages with at least one figure. The abstract must be formatted according to the EOS abstract guidelines, which can be downloaded at **www.myeos.org/system/files/events/abstractguidelines.pdf**.

Contributions will be accepted for oral and poster presentation. Please indicate your preference. All accepted contributions are to be published on the EOSAM 2012 digest CD-ROM (ISBN numbered) which will be available on-site. At least one author is requested to register for the meeting separately from abstract submission. The registration includes admission to all Topical Meetings, the workshop, special events and the exhibition.

PAPER PUBLICATION IN JEOS:RP

Attendees of EOSAM 2012 receive a 20% discount on the publication rate for JEOS:RP (Journal of the European Optical Society: Rapid Publications). The paper submitted must be an original contribution that is connected to EOSAM 2012 and will be reviewed against JEOS:RP's regular standards for insight, quality and novelty.
JEOS:RP is a peer-reviewed open-access journal at www.jeos.org. The 2010 impact factor is 1.044.

Special JEOS:RP publication rates for attendees of EOSAM 2012:
320 € (instead of 400 €) for non-members
280 € (instead of 350 €) for full members

Paper submission deadline: 30 November 2012.
The publication of a paper in JEOS:RP is an option for all EOSAM 2012 attendees, but no obligation.

SPECIAL EVENTS

GRAND CHALLENGES OF PHOTONICS SESSION

For the third time, EOS dedicates a special session to the "Grand Challenges of Photonics". In this session world-class speakers are going to talk about technologies which are revolutionary, uncommon and not realisable to date, but can pave the way for an even brighter future in optics and photonics. "*If we knew what it was we were doing, it would not be called research, would it?*" [Albert Einstein].

Chairs

- Fredrik Laurell, KTH - Royal Institute Technology (SE)
- Paul Urbach, University of Delft (NL)

Invited Speakers

- Andrea Ferrari, University of Cambridge (UK)
- Yosuke Tanaka and Takashi Kurokawa, Tokyo University of Agriculture and Technology (JP)
- Thierry Massard, Direction des Applications Militaires, CEA DAM (FR)

OTHER SPECIAL EVENTS

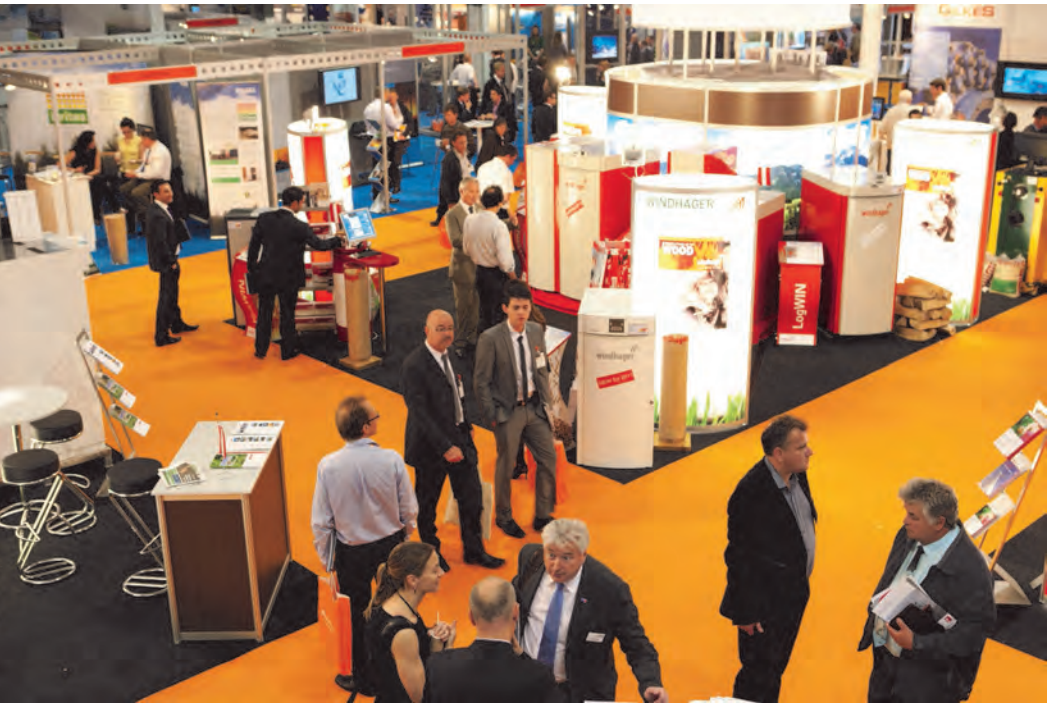
- EOS Student Reception featuring the EOSAM 2012 Best Student Talk & Poster Awards Ceremony
- EOS Prize & Fellows 2011/2012 Award Ceremony
- EOS Annual General Assembly

EOSAM 2012 EXHIBITION

As a novelty in 2012, an exhibition will be held alongside EOSAM 2012 to bridge the gap between science and industry. As a platform for companies, universities, research institutes, publishing houses and associations this exhibition features new products, technologies and services covering the latest developments in:

- Photonics for offshore applications ("blue photonics"®)
- Biomedical photonics
- Organic optoelectronics
- Micro-optical components and systems

Interested in exhibiting at EOSAM 2012? Contact us at aberdeen@myeos.org to request our exhibitor brochure.



SPONSORING & ADVERTISING

Gain visibility among our delegates and benefit from a wide range of sponsoring and advertising opportunities starting from 500 €. Contact us at aberdeen@myeos.org to learn more!

VENUE

ABERDEEN EXHIBITION AND CONFERENCE CENTRE

Aberdeen Exhibition and Conference Centre (AECC; www.aecc.co.uk) is Scotland's second largest conference venue, regularly hosting major international events. In 2003, the AECC saw £18 million of expansion and redevelopment.

ABERDEEN - THE „GRANITE CITY"

Standing at the gateway to Scotland's Castle and Whisky County, Aberdeen is a prosperous, cosmopolitan city. With its sparkling granite buildings, it has one of Scotland's most enchanting skylines, while the city's Old Town has a magical air of time gone by.

Spectacular architecture, fascinating history and a lively social scene are good reasons to combine work with pleasure. You can sample the 'water of life' and visit the eight distilleries on the world's only Malt Whisky trail. Follow the Castle Trail and take in 13 of the finest gems the region has to offer. Play on championship golf courses or follow in Queen Victoria's footsteps - the choice is yours.
Read more at www.visitscotland.com/aberdeen.

TRAVEL & ACCOMMODATION

BY AIR

Aberdeen's international airport is served by a number of major carriers, providing an extensive network of routes throughout the UK, direct to Europe and worldwide through major hubs.
Aberdeen International Airport is currently extending the runways, and additional international direct flights will be operated as of mid 2012. See table on the right for sample flights and rates.

BY TRAIN

Rail services connect Aberdeen both north and south. There are regular direct trains to London, and services from Edinburgh and Glasgow link with other mainline routes. Inverness, the scenic West Coast and Highlands are reached northwards.

ACCOMMODATION

Aberdeen City has around 4,500 hotel bedrooms, with a further 2,000 additional rooms planned to come on stream over the next three years. EOSAM 2012 delegates can choose between hotels onsite at the AECC and city centre hotels.

BOOKING SERVICE

The Aberdeen Convention Bureau provides a free accommodation booking service for EOSAM 2012 delegates.
Linked from www.myeos.org/events/eosam2012 hotel rooms and apartments can be booked in various price ranges starting from ~68 €/night.

Origin	Est. flight time	Est. costs
Amsterdam	3.50 h	218 €
Barcelona	4.45 h	307 €
Brussels	3.45 h	238 €
Budapest	5.15 h	351 €
Copenhagen	1.45 h	218 €
Dublin	4.25 h	153 €
Dusseldorf	4.05 h	234 €
Frankfurt (M.)	1.55 h	119 €
Helsinki	4.25 h	303 €
London	1.40 h	91 €
Lyon	5.05 h	251 €
Madrid	5 h	270 €
Milano	4.40 h	234 €
Moscow	6.55 h	353 €
Oslo	3.55 h	226 €
Paris	2 h	253 €
Prague	5.40 h	304 €
Rome	5.55 h	277 €
St. Petersburg	6 h	401 €
Stockholm	5.05 h	226 €
Vienna	4.45 h	270 €
Warsaw	5.20 h	247 €
Zurich	4.30 h	237 €

Based on departing Mon 24 Sept. 2012 and returning Fri 28 Sept. 2012. Checked on skyscanner.net 10 Oct. 2011. Additional international direct flights will be operated as of mid 2012.

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FEES

At least one author of an accepted contribution is requested to register properly in advance to EOSAM 2012.

The registration fee includes full-time admission to all topical meetings, workshops and accompanying events, a digest CD-ROM incl. the abstracts of all presentations given at EOSAM 2012 (not included in one-day fee) and coffee breaks as well as the admission to the exhibition.

Registrations from companies and non-university research institutes registered in EU countries (except Germany) are exempted from VAT, if VAT no. is given.

Early-bird registration **by 24 June 2012**	**Universities, private persons, German and Non-EU companies and non-university research institutes**	**EU companies and EU non-university research institutes (except Germany)**
Early-bird registration for members	490.00 € (incl. 19% VAT)	411.76 € (excl. VAT, VAT no. required)
Early-bird registration for non-members	550.00 € (incl. 19% VAT)	462.18 € (excl. VAT, VAT no. required)
Early-bird registration for student members	250.00 € (incl. 19% VAT)	210.08 € (excl. VAT, VAT no. required)
Early-bird registration for student non-members	280.00 € (incl. 19% VAT)	235.29 € (excl. VAT, VAT no. required)
Early-bird registration for one-day/workshop	250.00 € (incl. 19% VAT)	210.08 € (excl. VAT, VAT no. required)
Early-bird registration for invited speakers	420.00 € (incl. 19% VAT)	352.94 € (excl. VAT, VAT no. required)

Advanced registration **by 31 July 2012**	**Universities, private persons, German and Non-EU companies and non-university research institutes**	**EU companies and EU non-university research institutes (except Germany)**
Advanced registration for members	560.00 € (incl. 19% VAT)	470.59 € (excl. VAT, VAT no. required)
Advanced registration for non-members	610.00 € (incl. 19% VAT)	512.61 € (excl. VAT, VAT no. required)
Advanced registration for student members	300.00 € (incl. 19% VAT)	250.10 € (excl. VAT, VAT no. required)
Advanced registration for student non-members	330.00 € (incl. 19% VAT)	277.31 € (excl. VAT, VAT no. required)
Advanced registration for one-day/workshop	280.00 € (incl. 19% VAT)	235.29 € (excl. VAT, VAT no. required)
Advanced registration for invited speakers	420.00 € (incl. 19% VAT)	352.94 € (excl. VAT, VAT no. required)

Late/on-site registration after 31 July 2012	Universities, private persons, German and Non-EU companies and non-university research institutes	EU companies and EU non-university research institutes (except Germany)
Late/on-site registration for members	610.00 € (incl. 19% VAT)	512.61 € (excl. VAT, VAT no. required)
Late/on-site registration for non-members	660.00 € (incl. 19% VAT)	554.62 € (excl. VAT, VAT no. required)
Late/on-site registration for student members	330.00 € (incl. 19% VAT)	277.31 € (excl. VAT, VAT no. required)
Late/on-site registration for student non-members	360.00 € (incl. 19% VAT)	302.52 € (excl. VAT, VAT no. required)
Late/on-site registration for one-day/workshop	330.00 € (incl. 19% VAT)	277.31 € (excl. VAT, VAT no. required)
Late/on-site registration for invited speakers	420.00 € (incl. 19% VAT)	352.94 € (excl. VAT, VAT no. required)