

Community

News from the European Optical Society

Letter from the EOS President



Dear Member of the EOS,

In the following I like to give you an update on some important changes in our organization as well as give you some news from our on-going activities. Other Members of the Executive Committee of the EOS have also contributed to this Newsletter by writing about diverse topics of interest to our society.

Reorganization of the Office

During the last few years the events of the EOS have been organized by the EOS Events and Services GmbH based in Hannover. Klaus Nowitzki has been CEO of this company in conjunction with his function as Executive Director of the Society. On 26 March Klaus announced his resignation as Executive Director of the Society but he remains CEO of the GmbH. Klaus had already some time ago indicated to the EXECOM that he planned to step down as Executive Director. It became increasingly difficult for him to combine the work for his employer Laser Zentrum Hannover with his activities for the EOS.

Klaus Nowitzki has pursued an ambitious programme of growth for the EOS Society and its activity. Looking back, the programme was over-ambitious and the office working through the GmbH had become too expensive for the EOS. The situation deteriorated due to the fact that the EOSAM held in Aberdeen was not a financial success. It is always very difficult for scientific societies to earn any

money by organizing conferences and this holds in particular in times of economic crisis.

The office in Hannover has provided high quality support for the EOS. However, the financial situation has made a reorganization unavoidable. A number of temporary contracts of staff members had unfortunately to be ended. On behalf of the Board and the entire membership of the Society I want to thank the EOS staff for their high quality support and for the collaboration which has been smooth and pleasant.

The EXECOM has proposed to the Board and the General Assembly in Munich as next Executive Director of the EOS Prof. Dr. Jyrki Saarinen. After listening to Dr. Saarinen's plans for a leaner but efficient managing office based in Finland, the Board showed much confidence in him and unanimously decided to appoint him as the next Executive Director. Dr. Saarinen will work part-time as Executive Director, next to occupying the chair which he holds at the University of Eastern Finland. In the next Newsletter the new Executive Director will introduce himself and his plans to you. In the meantime I want to underline that, like the Board, the EXECOM is very happy with this new Executive Director. We wish him a lot of success in the interest of our society and its membership. Europe has a great tradition in optical science and technology and such an important field for Europe deserves a well-organized and effective European Optical Society.

Relationships with societies in Asia

Dr. Kimio Tatsuno, who is our Liaison Officer for Asia, is active in establishing relationships and collaborations with optical societies in Asia. There have been promising contacts with the Chinese, the Japanese, the Korean and the Indian Optical Societies.

Optical design training

Presently seven European universities collaborate in the FP7 Support Action "SMETHODS" (SME's Training and Hands-on practice in Optical Design and Simulation).

Training sessions of 4–5 days are offered on the principles and practice of optical design in four domains: Imaging Optics, Non-Imaging Optics, Wave Optics and Diffraction Optics. The objective of SMETHODS is to train employees of in particular SMEs in optical design without promoting a particular software tool for commercial reasons. The EU funding will end in February 2014 and until then training is free. Registration can be done on the website <http://www.smethods.eu>. There are plans to continue SMETHODS as a self-financing activity under the umbrella of the EOS. In addition to offering training sessions of 1 week, short courses could also be given immediately before certain Topical Meetings of the EOS. These courses can be very useful for newcomers to the topics of the conference and may therefore attract more students to our conferences.

Several Execom Members have contributed to this Newsletter. In particular, Dr. Wilhelm Ulrich, Senior Director of Optical Design of Carl Zeiss AG will inform you about the newly installed Industrial Advisory Committee (IAC) of the EOS. The EOS has a Scientific Advisory Committee whose chairman is Prof. Valentin Vlad. The Industrial Advisory Committee is an optional committee mentioned in the House Rules of the Society but not installed thus far. The Execom wants to strengthen the involvement of the European Optics industry with the Society and therefore has asked Dr. Ulrich to form the IAC. We are very happy that he is willing to do this.

Paul Urbach
President of the EOS

New EOS industrial advisory board



In order to improve its relevance for the European Photonics Industry, EOS has installed a new Industrial Advisory Committee (IAC). EOS would like to hear opinions of people from industry and let them influence the

decision making inside the EOS to increase the involvement of industry in the EOS.

The IAC began its work in February, and is currently discussing several ideas such as education and training, talent spotting, student chapters, new focus groups with high industrial relevance and others. Any suggestion which contributes to the goal of improving industrial relevance is very welcome.

The First IAC Meeting was during the World of Photonics Congress 2013 on 13 May in Munich, and discussed and ranked the suggestions collected over the last months. IAC recommendations were presented to EOS Board and EXECOM on 16 May. Results of first IAC meeting as well as any news will be reported on a regularly basis in AOT.

Members of the EOS IAC:

1. Wilhelm Ulrich (Carl Zeiss, DE), chairman
2. Sven Kiontke (aspericon, DE)
3. Reinhard Völkel (Suess MicroOptics, CH)
4. Andy Wood (Qioptic, UK)
5. Wilbert Ijzerman (Philips Lighting, NL)
6. Wolfgang Vollrath (KLA-Tencor, DE)
7. Oliver Föhnle (Fisba, CH)
8. Julius Muschaweck (Osram, DE)
9. Mike Wale (Oclaro, UK)
10. Michael Spieweck (Cassidian, DE)
11. Bo Bangtsson (Bäcken Industrifysik, SWE)
12. Ruben Mohedano (LPI Europe, ES)
13. Jyrki Kimmel (Nokia, FI)
14. ... member list is still open

Willi Ulrich
Senior Director of Optical Design of Carl Zeiss AG

New EOS focus groups

The EOS Execom is developing plans to reorganize its focus groups.

The EOS focus groups are a platform for communication between experts from science and industry with the aim of helping members to connect with their peers, to establish new contacts within their area of interest and to make the working results available to the EOS Photonics21 representatives to be considered for recommendations to the European Commission. A focus group typically has two to four coordinators who are expected to remain in office for at least 4 years. Ideally the coordinators organize for the EOS two events in their 4 years in their field of interest, either as a separate Topical Meeting (TOM) or a TOM that is part of the EOSAM.

New focus groups could e.g. be:

- Imaging and diffraction (including digital holography)
- THz radiation
- Bio- and medical photonics
- Nano-photonics including metamaterials
- Optics in industry (e.g., metrology, manufacture)
- Integrated photonics (e.g., silicon photonics)
- Quantum optics and quantum electronics
- Information optics and communications
- Adaptive optics and astronomy
- Optical materials
- Photonic components and devices

Michael Pfeffer

Secretary of the EOS

Editorial Team of the electronic open-access journal *JEOS:RP*

In the past months, the Editorial Team of *JEOS:RP* has been extended by a substantial number of renowned experts in optics. The goal of this extension was to cope with the increasing number of submissions to *JEOS:RP* and to obtain a better geographical coverage within the Editorial Team. For this reason, a relatively large number of the new members of the Editorial Team is from Asia. Here follows a list of the recently incorporated Editorial Team members: K. Asakawa, University of Tsukuba, Japan, Integrated optics. S. Foteinopoulou, University of Exeter, UK, Photonic crystals, nanophotonics, M. Kafesaki, FORTH Research Institute, Greece, Photonic crystals, metamaterials, T. Konishi, Osaka University, Japan, Optical communication, fibre devices, X. Liu, Zhejiang University, China, Optical instrument design, W. Margulis, Acreo Swedish ICT AB, Sweden, Fibre optics, C. Marquardt, Max Planck Institute Erlangen, Germany, Continuous variable quantum optics and quantum information, M. Shibuya, Tokyo Polytechnic Institute, Japan, Optical design and manufacturing, J. Tan, Harbin Institute of Technology, China, Metrology, optical standards and testing, microscopy, Y. Wang, Beijing Institute of Technology, China, Three-dimensional imaging, holography, Z. Zhou, Beijing University, China, Optical communication and opto-electronic devices.

Professor Hans-Peter Herzig (EPFL, Lausanne, Switzerland) is the new president of the Editorial Board of *JEOS:RP*; for the updated composition of this board, see: [https://www.jeos.org/index.php/jeos_rp/about/editorial Team](https://www.jeos.org/index.php/jeos_rp/about/editorial%20Team)

Joseph Braat

Editor-in-Chief of *JEOS:RP*

EOS organizes its First Topical Meeting on Frontiers in Optical Imaging (FOI 2013)

Optical imaging methods are of key importance in many fields of science and engineering, and a huge number of everyday applications crucially depend on imaging techniques. For this reason, EOS is organizing its first Topical Meeting on Frontiers in Optical Imaging (FOI 2013), taking place between 16 and 18 September 2013 in the beautifully located “Centre Loewenberg” in Murten, Switzerland. This topical meeting will be chaired by Peter Seitz (Hamamatsu Photonics Innovation Center Europe, ETH Zurich and EPFL Lausanne) and by Hervé Rigneault (CNRS/Institut Fresnel).

FOI 2013 is the continuation of the successful EOS conference series “Advanced Imaging Techniques”, combining it with the EOS topical meeting series “Frontiers of Electronic Imaging”. FOI 2013 will focus on the most relevant and most challenging of the optical imaging techniques covering the whole spectral range from X-ray image sensing to mid-infrared spectral imaging. Whatever the imaging modality, the goal is always the same: Explore the physical limits and make novel high-performance imaging techniques accessible to practical applications.

As a consequence, topics of interest include advanced methods for single-photon imaging, high-resolution Raman spectroscopy and imaging, ultra-high-speed time gating and time-sampling, phase-contrast imaging, 2D/3D imaging in scattering media, non-linear optical imaging, quantum imaging, wavefront and temporal shaping for novel imaging modalities, polarization imaging, mid-infrared spectroscopy and imaging, highest-resolution fluorescence microscopy, as well as physical super-resolution techniques such as STORM, STED and PALM.

Outstanding keynote speakers have confirmed their participation, including Ulf Leonhardt, who will speak on the theoretical limits of optical imaging methods, Christian Eggeling, physical methods for super-resolution imaging, Renato Zenobi tip-enhanced Raman spectroscopy and imaging, Monika Ritsch-Marte, phase imaging, and Yaron Silberberg, the limits of imaging in scattering media and quantum imaging.

By combining novel physical detection principles, advanced sensor chips, electronic readout circuits, new optical imaging techniques, mathematical algorithms for image reconstruction and physical techniques to improve image resolution, the frontiers of optical imaging are pushed back further, and an increasing number of these



Centre Loewenberg, Murten Switzerland, where the FOI 2013 will be held.

high-performance imaging techniques can be exploited in a large variety of practical applications.

Whether you are scientifically exploring the physical limits of optical imaging techniques or you are engineering novel solutions to high-impact imaging applications, FOI 2013 is for you. We hope to see you all in September at the Centre Loewenberg in Switzerland.

Peter Seitz and Hervé Rignault
Chairs of FOI 2013

Report on Photonics21 and the Annual Meeting (Brussels, 29–30 April 2013)

The European Technology Platform Photonics21 is renewing itself to be ready to win the challenges set by Horizon 2020, the European program that will follow and substitute FP7. In the new approach a strong focus will be placed on innovation that has to be fulfilled as the exploitation of research and development. Differently from what happened in the past, technology readiness levels up to TRL 8 have to be addressed, to ensure that the whole value chain is covered.

Photonics is a key enabling technology that has reached a good maturity and has an enormous economic and innovation potential that needs to be exploited to ensure European industrial competitiveness and economic

growth. Indeed, in Europe photonics is sustained by a wide tissue of industries, most of them SMEs, and by an excellent network of universities and research institutions. To ensure a strong long-term commitment both of photonics industries, together with academia, and of the European Commission, a proposal for a Public Private Partnership is being set. The PPP is expected to ensure a large leverage effect, with industry investing on average 4:1 times the funding received by the EC, academia supporting technology transfer and ensuring high-level education and professional training, but also providing new knowledge and breakthrough ideas that will foster future innovation.

On April 29–30, the Photonics21 Annual Meeting took place in Brussels. The future and perspectives of photonics in Europe were discussed and the priorities to be addressed both in the short and in the medium to long-term were considered. Photonics was confirmed as a key technology for European industrial competitiveness, based on excellent science on one side, and with the capability of addressing and solving societal challenges on the other side of the whole value chain. Thus photonics, although having its natural home in the “industrial competitiveness” pillar of Horizon 2020, has a great potential impact and a strong commitment in the “excellent science” and in the “societal challenges” pillars: this makes it an ideal driving force for Horizon 2020.

Roberta Ramponi
Politecnico di Milano, EOS EU Representative