



ICO-25 • 31 August - 04 September 2020 • OWLS-16

25th Congress of the International Commission for Optics (ICO) • 16th International Conference on Optics Within Life Sciences (OWLS)

SECOND CALL FOR PAPERS

The 25th Congress of the International Commission on Optics (ICO-25) and the 16th International Conference on Optics in the Life Sciences (OWLS-16) will take place from August 31 to September 4, 2020 at the TU Dresden, Germany. After 30 years and continuing the success of the recent previous general congresses, it is our great honor to host the General Congress and General Assembly of ICO in our country again. The ICO, "the Place where the World of Optics and Photonics Meets", is an affiliated commission of the International Union of Pure and Applied Physics (IUPAP), and a scientific associate of the International Council of Science (ICS). Its objective is to contribute, on an international basis, to the progress and diffusion of knowledge in the fields of optics and photonics. The ICO has the missions to foster advanced laser science and technology and to promote the development of science and technology in developing countries. The ICO is an umbrella organization with more than 50 territorial committee members and seven international academic societies: OSA (The Optical Society), SPIE (The International Society for Optics and Photonics), EOS (European Optical Society), IEEE (Institute of Electrical and Electronics Engineers), OWLS (International Society on Optics Within Life Sciences), LAM (African Laser, Atomic and Molecular Physics Network), and RIAO (The Iberian American Network on Optics).

The main theme of the congress ICO-25-OWLS-16-Dresden-Germany-2020 is "Progress of Society with Light", highlighting the importance of optics, photonics and laser technology to society in a variety of fields including medicine, communications, metrology, and manufacturing. Optics and photonics will contribute greatly to solving issues on global energy and the environment. The United Nations Educational, Scientific and Cultural Organization of the UNO provides with the International Day of Light on May 16 an annual focal point for the continued appreciation of light and the role it plays in science, culture and art, education, and sustainable development, and in fields as diverse as medicine, communications, and energy. The use of LEDs for the lighting in our cities will save energy. In everyday life we frequently benefit from advanced light technology, as backbone of internet, in smart phones and for human health care. Light has the potential to recognize the origins of diseases, to prevent them, or to cure them early and gently. This is one of the central topics of OWLS, which was founded at the ICO-15 Congress in Garmisch-Partenkirchen in 1990. Therefore, a special commemorative event of the 30 years anniversary of the foundation of OWLS in Germany will be organized. Let yourself be inspired with the congress ICO-25-OWLS-16-Dresden-Germany-2020 for new ideas, their translation into progress for society and to foster developing countries. On behalf of ICO-25-OWLS-16-Dresden-Germany-2020, I hope everyone will have an exciting, fascinating and memorable time at this general congress.

Juergen Czarske,

General Chair of ICO-25-OWLS-16-Dresden-Germany-2020, Professor and Director at TU Dresden, Fellow of OSA, Fellow of SPIE, Fellow of EOS, Senior Member of IEEE, Member of Saxon Academy of Sciences, Board Member of German Society of Applied Optics (DGaO) - The German Branch of the European Optical Society (EOS)

ABSTRACT / PAPER SUBMISSION

Contributed summaries are limited to 2 pages, including an abstract with 35 words. Authors and affiliations will be submitted online.

TOPICS

1. Optical Engineering, Material Processing, Design and Lithography
2. Display and Vision
3. Optical MEMS and Micro-Optics
4. Optical Sensing
5. Computational Metrology
6. Optical Information Processing and Imaging
7. Quantum and Nonlinear Optics
8. Ultrafast Phenomena and Ultrafast Optics
9. High Power Lasers, X-Ray and High-Energy Optics
10. Nano-Optics, Plasmonics and Metamaterials
11. Photonic Crystals, Nano Structures and Functions
12. Fiber Optics
13. Optical Communications and Photonic Network
14. Optoelectronics, Terahertz Photonics and Silicon Photonics
15. Microscopy, Biomedical Spectroscopy and Advanced Imaging
16. Biomechanics, Optical Elastography and BioBrillouin
17. Biomedical Optics
18. Nanobiophotonics, Optogenetics and Nanosensing

Important Dates

Deadline for papers
January 31st 2020

Abstract acceptance / grants application
April 2020

Programme issue
June 2020

Early bird registration deadline
July 31st 2020

General Chair
Juergen Czarske

Int. Program Committee Chair
of ICO-25
Wolfgang Osten

Int. Program Committee Chair
of OWLS-16
Alexander Heisterkamp

Honorary Chair
Gert von Bally

Fundraising Committee Chair
Frank Hoeller

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Website: www.ico25.org

Date of Change: January 13th, 2020.
Subjects to change!

Sponsors:



INTERNATIONAL COMMISSION FOR OPTICS
COMMISSION INTERNATIONALE d'OPTIQUE



International Society on
Optics Within Life Sciences

Co-Sponsors:



PLENARY SPEAKERS



Prof. Dr. **Karsten Danzmann**
 Director, Max Planck Institute for Gravitational Physics (Albert Einstein Institute) and
 Director, Institute for Gravitational Physics, Leibniz Universität Hannover

„Gravitational Wave Astronomy: Listening to the Sounds of the Dark Universe!“



Prof. Dr. **Stefan Hell**
 Director, Max Planck Institute for Biophysical Chemistry, Göttingen, and Max Planck
 Institute for Medical Research, Heidelberg, Germany
 Professor at University of Göttingen and Heidelberg University

„Optical Microscopy: The Resolution Revolution“



Prof. Dr. **Gérard Mourou**
 Professor at the École Polytechnique, Palaiseau, France and A. D. Moore Distinguished
 University Professor Emeritus, University of Michigan, USA

„Passion Extreme Light and Applications to the Greatest Benefit of Human Kind“



Prof. Dr. **Margaret Murnane**
 Director, JILA, Distinguished Professor of Physics at the University of Colorado, and
 Fellow of NIST, Boulder, USA

„Harnessing Quantum Light Science for Applications in Materials Science“



Prof. Dr. **Didier Queloz**
 Professor at the University of Cambridge, UK and Professor at the University of Geneva,
 Switzerland

„The Exoplanet Revolution“

REGISTRATION

	Early Bird before Aug 01 2020	Regular after Aug. 01 2020
Registration Fee	560 €	650 €
Student */Emeritus* (with uploaded document)	360 €	450 €
Reduction for Society Members of Co- Sponsors (DGaO, ICO, OWLS, OSA, SPIE, IEEE)	510 €	600 €
Student*/Emeritus* (with uploaded document) incl. Reduced Fee for Society Members of Co-Sponsors (DGaO, ICO, OWLS, OSA, SPIE, IEEE)	310 €	400 €

* A copy of the Student ID / Emeritus Status will be required to validate the registration.

The registration fee includes:

- Participation in regular sessions
- Conference material
- Coffee breaks
- Get together (Monday, incl. visit of Frauenkirche Dresden / Church of Our Lady)

The registration fee does not include:

- Award ceremony with conference dinner (Wednesday)
- Cost: 50 € per Person

Support of Developing Countries:

- Scholarships for Students paid by Sponsors
- Grants for Scientists (Human Development Index is one of the decision criteria)

ACCOMODATION

A list of available hotels with special congress rates can be found on the congress homepage:

<https://ico25.org/?s=accommodation>

AWARDS

- Best Poster Prizes DGaO
- Best Paper Prizes OSA-SPIE
- Best Paper Prize OWLS



Technical Co-Sponsors:

