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Press Release

Online congress

The highlights of Europe's largest photonics conference

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- Address by Professor Reinhard Genzel, the 2020 winner of the Nobel Prize in Physics
- Five sub-conferences covering all aspects of photonics research
- Industry insights during the LASER World of PHOTONICS Industry Days

This year's World of Photonics Congress will be a strictly virtual event when it is held from June 20 to 25, 2021 due to the COVID-19 pandemic. Five scientific conferences and a industrial program will be conducted under the congress' umbrella.

The partners of the World of Photonics Congress, the scientific societies, will use their own digital platforms for the conferences. The platform of Messe München will serve as the interface of all conferences and stream events live. Participants can also use the platform's networking function to reach out to fellow researchers. They will be able to visit the digital showrooms of sponsors and attend an exclusive industry event – the LASER World of PHOTONICS Industry Days. This latter event may be attended free of charge by any interested individual. The topics will range from market figures and applications of photonics and quantum technology to lab tours. Only registered attendees will have access to the platforms of the individual conferences.

The following events will be held under the umbrella of the World of Photonics Congress:

- CLEO®/Europe-EQEC – 2021 Conference on Lasers and Electro-Optics/Europe – European Quantum Electronics Virtual Conferences – organized by the European Physical Society (EPS)
- Digital Optical Technologies – organized by SPIE Europe
- ECBO – European Conferences on Biomedical Optics – organized by The Optical Society (OSA).
- LiM – Lasers in Manufacturing – organized by Wissenschaftliche Gesellschaft Lasertechnik e.V. (WLT)
- Optical Metrology – organized by SPIE Europe

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- World of Photonics Stage with current issues in the photonics industry – organized by Messe München

The online version of the World of Photonics Congress will be opened on Monday, June 21, 2021 on the World of Photonics stage by **the 2020 Nobel Prize winner for Physics: Professor Reinhard Genzel**, the Director of the Max Planck Institute for Extraterrestrial Physics, will discuss the 40-year journey that he has taken with colleagues to prove Einstein's general theory of relativity by conducting astrophysical measurements of the Milky Way. Reinhard Genzel, Andrea Ghez and Roger Penrose received the Nobel Prize for their research into black holes. During this work, the group led by Prof. Genzel used extremely precise methods to observe brilliant explosions of gas in the vicinity of a black hole and the gravitation shift of a passing star that was triggered by this monster of mass, among other things.

The plenary speakers

- The plenary speakers at CLEO®/Europe-EQEC will be **Professor Robert Boyd** of the University of Rochester and the University of Ottawa and **Professor Nirit Dudovich** of the Weizmann Institute of Science in Israel. Prof. Boyd conducts research into quantum nonlinear optics and quantum photonics. He is one of the founders of the quantum imaging research, a field in which the quantum properties of light are used to increase the resolution of optical images. Prof. Dudovich and her team focus on attosecond science and conduct research into such areas as photoionization spectroscopy and photoelectron holography.
- Another highlight will be the plenary address at the Conference on Digital Optical Technologies: **Hiroki Kikuchi**, Deputy Senior General Manager of Sony Group Corporation R&D Centers, will take conference attendees on a trip into the virtual world of tomorrow ("Digital Optical Photonics to Inspire Kando (emotion) 3R: Reality, Real-time and Remote Technologies").
- **Professor Vasilis Ntziachristos**, the Director of the Chair of Biological Imaging at the Technical University of Munich, will report on the latest high-performance optical and optoacoustic processes in biological imaging. In his opening address to the ECBO, he will describe the progress being made in multi-spectral optoacoustic tomography (MSOT) and mesoscopy (MSOM). The advances will facilitate the visualization of anatomical, physiological and molecular biomarkers.

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- LiM – Lasers in Manufacturing – will open its online sessions with insights into additive manufacturing and materials processing using ultrashort laser pulses. **Professor Gleb Turichin** of the St. Petersburg State Polytechnic University is a globally recognized specialist in the theory and practical application of laser, hybrid and additive technologies. He will talk about the “Trends and prospects of additive manufacturing of large metal parts.” The second plenary address will be given by **Dr. Jörg Krüger** of the Bundesanstalt für Materialforschung und -prüfung (German institute for materials testing). He will talk about X-rays that are emitted during materials processing using ultrashort laser pulses.
- The intriguing title of the plenary address of the Optical Metrology Conference is: “Optical sociology – how organizational culture impacts advances in optical metrology.” **Dr. Peter de Groot**, the Executive Director of R&D at Zygo Corporation, will explore cultural influences on the use of optical measuring processes.

And the winner is...

Europe’s largest conference on the science of light will honor outstanding research once again in 2021:

- The Herbert Walther Award created in 2008 will be presented by the OSA and the German Physics Society. The award recognizes exceptional work done in quantum optics and nuclear physics as well as leadership qualities in the international scientific community. The award will be presented this year to Professor Wolfgang Peter Schleich, the Head of the Institute for Quantum Physics at the University of Ulm. Prof. Schleich is considered to be a pioneer in quantum optics research.
- The WLT Award and the Bernard J. Couillaud Award will also be presented during the conference. The Bernard J. Couillaud Award, which comes with a cash prize of \$25,500, was re-initiated by the OSA Foundation and the company Coherent to advance projects conducted by young researchers in the area of ultrashort pulse lasers.

The awards will be presented virtually on the World of Photonics Stage.

More information: www.photonics-congress.com

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About the LASER World of PHOTONICS

The LASER World of PHOTONICS is the world's leading platform for the laser and photonics industry. The next conference has been postponed to April 26 to 29, 2022, as a result of the COVID-19 pandemic in 2021. The World of Photonics Congress, Europe's largest conference on this topic, is usually held as part of the LASER World of PHOTONICS. This year, however, it will be a strictly online event held from June 20 to 25. The program comprises a number of scientific conferences held by globally leading organizations.

About the LASER World of PHOTONICS global network

The LASER World of PHOTONICS has developed an international trade fair network. The LASER World of PHOTONICS in Munich is the world's leading laser and photonics trade fair and as the innovation pacemaker is where the global photonics industry gathers every two years. The [LASER World of PHOTONICS CHINA](#) and the [LASER World of PHOTONICS INDIA](#) are leading regional trade fairs for laser and optical technologies and are staged annually in China (Shanghai) and in India (alternating between Bengaluru, Mumbai, Bangalore and New Delhi). With these trade fairs in Munich, China and India, Messe München is the world's leading trade fair organizer for lasers and photonics.

Messe München

Messe München is one of the leading exhibition organizers worldwide with more than 50 of its own trade shows for capital goods, consumer goods and new technologies. Every year, a total of over 50,000 exhibitors and around three million visitors take part in more than 200 events at the exhibition center in Munich, at the ICM – Internationales Congress Center München and the MOC Veranstaltungszentrum München as well as abroad. Together with its subsidiary companies, Messe München organizes trade shows in China, India, Brazil, Russia, Turkey, South Africa, Nigeria, Vietnam and Iran. With a network of associated companies in Europe, Asia, Africa and South America as well as around 70 representations abroad for over 100 countries, Messe München has a global presence.