



Experimental physicist Gerd Leuchs elected president of renowned scientific society Optica

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Gerd Leuchs, Director Emeritus at the Max Planck Institute for the Science of Light in Erlangen and Senior Professor at the Friedrich-Alexander-Universität Erlangen-Nürnberg, has been elected President for 2024 by the members of Optica, the world's leading society for optics and photonics. Leuchs has already been in the presidential chain since 2022 and succeeds Michal Lipson.

"Even as a PhD student, I saw other role models in my field – Arthur Schawlow, Boris Stoicheff and Emil Wolf – become president of Optica. Never in my wildest dreams could I have imagined that I would one day follow in their footsteps," said Leuchs, who has been an Optica Fellow since 2004, at the start of his office as President of the Society. "It is a privilege to be President of Optica 2024. I look forward to serving the Optica community."

Founded in 1916, the Optica Scientific Society (formerly OSA, Optical Society of America) is dedicated to promoting the generation, application, documentation and dissemination of knowledge in optics and photonics worldwide. Today, the society is the leading organization for scientists, engineers, business people, students and others interested in the science of light. Optica's renowned publications, conferences, online resources and other activities foster discovery, shape real-world applications, and accelerate scientific, technical and educational achievements.

During Leuchs' presidential term, emphasis will be placed on dealing with the prevailing trend of evaluating the quality of both science and scientists based on the 'impact factor' of the journals they publish in. He is also keen to explore the



Professor Gerd Leuchs, Founding Director of the Max Planck Institute for the Science of Light and Optica President 2024.

relationship between Optica and industry. "Having worked in the industry for five years myself, I recognize there is still room for improvement. After all, science and industry have always benefited from each other and will continue to do so."

2025 is expected to be the UN's International Year of Quantum Science and Technology. The honoring of this field of science will be a special milestone for Optica. "The planning for 2024 aims to make the most of the focus on this topic in the following year," according to Leuchs.

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About Gerd Leuchs

A physicist by training, Gerd Leuchs has led numerous research groups since 1985, including a period in industrial R&D in Switzerland from 1990 to 1994. He then moved to the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), where he is still a researcher today. After a five-year pilot phase, jointly funded by the Max Planck Society (MPG) and the Free State of Bavaria, the MPG founded the new Max Planck Institute for the Science of Light at Erlangen in 2009. Leuchs was the director of the institute until his retirement in 2019. Since then he has continued to lead a research group. He is working together with Prof. Christoph Marquardt on the Bavaria-wide project "QuKomIn", which is funded by the Free State of Bavaria. This project aims to establish a real-world test infrastructure for quantum communication in the form of a hybrid fibre-optic network with satellite links and application laboratories at and between Erlangen, Nuremberg, Munich and Oberpfaffenhofen, with additional links to Thuringia and Saxony. He is also closely associated with the University of Ottawa as an adjunct professor.

In addition to quantum communication, Leuchs' scientific work includes quantum beats, angular distributions of photoelectrons in multiphoton ionisation, quantum noise-reduced and entangled light beams, quantum solitons in optical fibres, nanophotonics and interferometry. He has published more than 400 papers in scientific journals and edited three books. In 2005, the European Physical Society awarded him the Quantum Electronics and Optics Prize. In 2014 he received an ERC Advanced Grant and in 2018 the Herbert Walther Prize jointly awarded by the German Physical Society and Optica.



Research at the Max Planck Institute for the Science of Light (MPL) covers a wide range of topics, including nonlinear optics, quantum optics, nanophotonics, photonic crystal fibres, optomechanics, quantum technologies, biophysics, and – in collaboration with the Max-Planck-Zentrum für Physik und Medizin – links between physics and medicine. MPL was founded in 2009 and is one of the over 80 institutes that make up the Max Planck Society, whose mission is to conduct basic research in the service of the general public in the natural sciences, life sciences, social sciences and the humanities.

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