



NEWSLETTER

COMMISSION INTERNATIONALE D'OPTIQUE • INTERNATIONAL COMMISSION FOR OPTICS

A MESSAGE FROM THE ICO PRESIDENT

“ICO mission is to build an international optical community in which everyone can dialogue and collaborate to continually advance optics and photonic advances, and in which no one is left behind.”



Dr. Eric Rosas from Universidad Autónoma del Estado de Mexico, has been elected President of the ICO for the term 2024-2027.

“A wider visibility of our actions will allow the ICO to occupy its rightful place and continue to be the place where the world of optics meets.”

Throughout its existence, humanity has understood countless natural phenomena and from this has managed to develop technologies to improve living conditions. At the time, different civilizations were able to develop stone, copper, bronze, and iron tools in their respective eras. In modern times, the understanding of mechanics, hydraulics, pneumatics and thermodynamics allowed the first industrial revolution. Later, the unification of electrical, magnetic and optical phenomena by Maxwell made possible the development of new technologies that significantly improved telecommunications and transportation. In the middle of the last century, the emergence of quantum mechanics served as the basis for the emergence of electronics, on which world development has been based in recent decades; but now we stand on the threshold of the Age of Light.

It is the technologies based on the luminous phenomenon that will sculpt the world for the second half of the 21st century, among others, optical telecommunications, the Internet supported by constellations of micro satellites communicated with lasers, autonomous vehicles guided by lidars, integrated photonic circuits that will serve as a basis for the consolidation of quantum computing or artificial intelligence, among many other even still unknown technologies. This is why presiding over the International Commission for Optics (ICO) in the coming triennium, in which it will be

celebrating its first eighty years of existence, represents not only a great honor, but also an enormous responsibility.

Today, light-based technologies are called upon to provide solutions to the main challenges we face as a global society and which are accurately summarized in the Sustainable Development Goals proposed by the United Nations. Optics and photonics have demonstrated their usefulness in the clean generation of energy, in the improvement of the world economy, in the rational use of natural resources, etc., but these contributions must substantially increase their impact in the years to come and this requires the cooperation of scholars, scientists, technologists, entrepreneurs and students from around the world. Of course, the incorporation of the new generations of opticians to the international community brought together in the ICO will be the central axis around which all our efforts and resources will revolve.

It is also time to reaffirm the global leadership of the ICO as an entity that effectively articulates the efforts of all the national and regional communities that make it up, so that it can bring a unified and powerful voice before important instances, such as the International Science Council or the United Nations Educational, Scientific and Cultural Organization.

Dr. Eric Rosas
ICO President 2024-2027

THE ICO-26 CONGRESS & GENERAL MEETING

The ICO Congress took place in African soil for the first time.



Dr. Yaseera Ismail from Stellenbosch University chaired the organizing committee of ICO-26.



Nobel Laureate Prof. Donna Strickland during her talk on high-intensity lasers.

The 26th Congress of the International Commission for Optics (ICO-26) marked a historic milestone, taking place on African soil for the first time. Gathering delegates from 25 countries across six continents, ICO-26 became a vibrant platform for sharing groundbreaking knowledge and fostering collaboration in the field of optics, with the support of all seven major science societies.

Notable keynote speakers included Prof. Donna Strickland (University of Waterloo, Canada) and Prof. Anne L'Hullier (Lund University, Sweden), who led the lineup, opening discussions on nonlinear optics, high-intensity lasers, and the evolution of attosecond science. Plenary speakers such as Prof. Juan Yin (University of Science and Technology of China) and Prof. Gerd Leuchs (OPTICA President, Max Planck Institute) covered transformative topics, from space-based quantum physics to classical optics. Prof. Carlos Hernández-García, a recipient of the ICO Award 2023, presented on attosecond pulse structuring, while other speakers shared their work in areas like photonics, programmable photonics, and optical manipulation. The ICO-26 program also included several enriching sessions, such as workshops focused on academic

and professional writing, providing invaluable insights for the next generation of optics scholars. Another panel discussion addressed global challenges and innovative solutions aligned with the sustainable development goals (SDGs), emphasizing the critical role of science in sustainable development. The networking event "Roses in Science and Elite Panel:" fostered collaboration among senior and emerging researchers. Another highlight of the Congress was the session focused on the Hyper-ActivePi hyperspectral camera project, an innovation developed through global collaboration for applications such as food monitoring and environmental analysis. The Congress also celebrated the achievements of leaders in the field, presenting several ICO awards.

ICO-26 extended its gratitude to the sponsors, partners, and participants whose support was instrumental in making this congress an impactful and successful gathering. As a first for Africa, ICO-26 laid the groundwork for ongoing international cooperation in advancing optics research and its real-world applications.

Dr. Yaseera Ismail
ICO Vice-President
appointed by OPTICA



The best student contributions were awarded at the Gala dinner of the Congress. Applied Research: Angel Mendez and Juan Naranjo (Escuela Politécnica Nacional, Ecuador) PhD Poster: Eugene Fouche (Stellenbosch University), MSc Poster: Pashlene Naidoo (Stellenbosch University), Innovative Research: Conrad Strydom (Stellenbosch University), Research with a strong focus on the SDGs: Aylar Shams Khameneh (University of South Africa), Industry-focused Research: Tebogo Ledwaba (Stellenbosch University), Optical Material and Nanophotonics poster: Nancy Mwenze (University of South Africa), Advances in Optical Imaging and Spectroscopy Poster: Kelsey Everts (Stellenbosch University), Quantum Optics and Information Processing Poster: Marie Louise Umhire (University of KwaZulu-Natal).

Results of the ICO Bureau Elections

Elections took place during the second session of the ICO General Meeting.



Prof. Roberta Ramponi, from Politecnico di Milano, as ICO Past-President, chaired the ICO Nominating Committee for 2024 election.

On Thursday October 24th, the election of the ICO Bureau for the term 2024-2027 took place during the celebration of the General Meeting. The election was chaired by Prof. Roberta Ramponi as ICO Past-President.

According to the ICO rules, for any vote, if the number of candidates is equal to the number of seats, the Nominating Committee Chairperson may decide that there is no vote and declare the candidate(s) elected.

As it was the case, the following persons were declared elected members of **the new ICO executive committee**:

President: Eric Rosas-Solis (Universidad Autónoma del Estado de Mexico, Mexico). Past-President: John Howell (Chapman University, USA). Secretary General: Humberto Michinel from Universidade de Vigo, Spain. Associate Secretary: Adrian Podoleanu (University of Kent, UK). Treasurer: Kent Choquette (University of Illinois Urbana-Champaign, USA).

Concerning the ICO Vice-Presidents, the result was (in alphabetical order):

Alessia Candeo (Politecnico di Milano, Department of Physics, Italy); Juergen Czarske (Technische Universität Dresden, Germany); Andrey Naumov (Moscow Pedagogical State University, Russia); Joseph Niemela, (International Center of Theoretical Physics, Italy); Rogério Nogueira (Watgrid Solutions, Portugal); Yidong Huang, (Tsinghua University, China); Kaoru Minoshima (University of Electro-Communications, Japan) and Nathalie Westbrook (University Paris-Saclay, France).

Finally, the following Vice-Presidents were appointed by their respective international organizations:

Bo Gu (SPIE), Yaseera Ismail (OPTICA), Lothar Lilge (OWLS), Patricia Segonds (EOS), Ahmadou Wagué (LAM). IIEEE, RIAO and IUPAP did not appoint their representatives at the time of printing this issue.

**Prof. Roberta Ramponi
Chairperson of the ICO
Nominating Committee**



Some members of the previous and new ICO bureau after the second session of the ICO General Meeting celebrated at Lord Charles Hotel in Southwest South Africa. From left to right, top: Gilles Pauliat, Andrey Naumov, Alessia Candeo, Kent Choquette, Kaoru Minoshima, Eric Rosas, Yidong Huang, Roberta Ramponi, John Howell, Lothar Lilge; bottom: Nataliya Kundikova, Nathalie Westbrook, Ahmadou Wagué and Humberto Michinel.

ICO AWARDS 2024

Four ICO awards were delivered at the ICO-26 Congress.



Prof. Carlos Hernandez-García from Universidad de Salamanca, Spain, receives the ICO Award 2023 from Nobel Laureate Donna Strickland.

Contacts

International Commission for Optics (<http://e-ico.org>).

Bureau members (2024–2027)

President E Rosas

Secretary H. Michinel,
Escola de Enx. Aeroespacial
Universidade de Vigo, Campus
de Ourense (Spain)
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Past-president J Howell

Treasurer K Choquette

Assoc. Secretary A Podoleanu
Vice-presidents, elected

A Candeo, J Czarske, Y Huang,
K Minoshima, A Naumov,
J Niemela, R Nogueira,
N Westbrook

Vice-presidents, appointed

B Gu, Y Ismail, L Lilge, P
Segonds, A Wagué,

IUPAP Council representative

C Cisneros

Editor in chief H Michinel



2024 ICO Awards were announced during the last ICO26 Congress to the ICO General Assembly. The ICO Prize is given each year since 1982 to an individual who has made a noteworthy contribution to optics, published submitted for publication before the age of 40. In 2024 the ICO Committee chaired by Prof. Leszek Sirko recommended Qing Dai a Professor at Shang Hai Jiao Tong University, Shanghai, China, as the winner of the ICO Prize 2024 "for pioneering contributions to polaritonics in two-dimensional materials, advancing the understanding and application of graphene plasmon-enhanced infrared spectroscopy, and producing groundbreaking work in ultrafast optically induced electron emission from carbon nanotubes.

The ICO Galileo Galilei Medal contributes to one of the essential goals of the International Commission for Optics: to recognize the promotion of Optics under difficult circumstances. The award was established by the 1993 General Assembly of ICO and has been awarded annually since 1994. In 2024, the Committee chaired by Prof. Natalya Kundikova decided to award Prof. Victor Reshetnyak, of Taras Shevchenko National University of Kyiv, Ukraine "for his outstanding contribu-

tions in the fields of holography, liquid crystals and photonic devices achieved under comparatively difficult circumstances".

The last announced was the Early Career Scientist Prize in Optics Medal, that is awarded annually since 2008 by IUPAP through ICO to a scientist who has made noteworthy contributions to applied optics and photonics during a maximum of 8 years of research experience after having earned a PhD degree. The committee, chaired by Dr. Gilles Pauliat decided to give the Medal to Utso Bhattacharya from, ETH (Eidgenössische Technische Hochschule), Zürich, Switzerland "For the breadth and depth of his theoretical contributions to quantum optics".

During the ICO-26 meeting four awards were delivered: the ICO 2018 and 2023 awards to Mikael Rechtsman and Carlos Hernández-García, respectively and the Galileo Galilei Medals 2019 and 2023 to Malik Maaza and Mahdy R. Chowdhury, respectively.

Prof. Humberto Michinel
ICO Secretary General

Forthcoming events with ICO participation

Below is a list of forthcoming events with ICO participation.

For further information, visit their official websites listed below.

24-28 August 2025

XIII Annual Meeting of the European Optical Society. EOSAM

Delft, The Netherlands

Contact: Elina Koistinen

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17-21 November 2025

RIA-OPTILAS 2025. XII Iberian-American Meeting on Optics . XV Latin-American Meeting on Optics, Lasers and Applications

Santa Cruz de la Sierra, Bolivia

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<https://riaof.org>

Responsibility for the correctness of the information on this page rests with the International Commission for Optics (ICO); <http://www.e-ico.org/>. **President:** Prof. Roberta Ramponi, Director IFN-CNR, Politecnico di Milano, Italy; roberta.ramponi@polimi.it. **Treasurer:** Prof. Joseph Niemela, International Center for Theoretical Physics, Italy; niemela@ictp.it. **Secretary:** Prof. Humberto Michinel, Universidade de Vigo, Spain; secretariat@e-ico.org.