



## OPTICAL SOCIETY OF LONDON 125 YEAR ANNIVERSARY

**“Due to the visionary work of the pioneers 125 years ago, today optics is regarded as foundational in physics and has revolutionised society”.**



Dr A. W. Goodwin-Jones, California Institute of Technology and Optical Group Committee of the Institute of Physics (IOP).

**The Optical Group** (OG) within the Institute of Physics (IOP) traces its history back to the Optical Society of London. Throughout the 1800's the field of optics advanced rapidly and as the century due to a close, a group of pioneers saw the need for a dedicated Optical Society. In 1899, the Optical Society of London was founded, with a council of 20 (1). The membership grew to include 300 optical enthusiasts (2) and met between 9 and 10 times a year, discussing research, book reviews and the latest technology. The group founded a new journal The Transactions of the Optical Society, which attracted seminal works, including the famous Twyman-Green interferometer (3), still used today around the world for the calibration of optical components. During the late Victorian and early Edwardian era, the landscape of physics shifted away from the format of exclusive semi-private clubs, into a format, that was “in far closer touch with the organised activities of the community” (4). In January 1926, the Optical Society

(of London) and the Physical Society (of London) held a joint exhibition, celebrating the technical achievements of the day (5). Exhibits included early work on radio-frequency wavemeters, stroboscopes and a Royal Navy exhibit on depth sounding.

A particularly well received talk discussed biochromatic microscopes, combining UV with visible light to image structures as small as 200nm. The reception was such, that it was immediately repeated to an audience who were unable to obtain seats during the first delivery. According to records printed at the time (5), this was the sixteenth joint exhibition.

Optical instrumentation was slowly becoming the workhorse of physics and so the overlap between the Optical Society of London and the Physical Society of London increased (4). This in turn led to poor attendance at the Optical Society meetings and by 1930 the society was not in a good shape financially (2). In 1932 it merged with the Physical Society of London (4).

*Headquarters of the IOP in London, where the Optical Group develops its activity. As the group celebrates its 125th anniversary, the IOP OG has grown to over 2,000 members, representing 17% of the IOP.*





The UK Optical Group is represented within the ICO by Prof Adrian Podoleanu from the University of Kent, as ICO Associate Secretary.

**When the Physical Society** and Institute of Physics merged in 1960 (6), the Optical Group took on the role as the de facto national Optical Society of the UK and Ireland. OG luminaries such as Frank Twyman were involved in the first years of the ICO, and indeed London's Thomas Smith was appointed as the first ICO president (7). Incidentally, his article "The C.I.E. colorimetric standards and their use" (8) was in the final volume of Transactions. Following the war, the scientific co-operation was deemed vital for long-term peace prospects and the IOP Optical Group has actively contributed to this dialogue (9) (10).

Group members include academic scientists, technicians, engineers and researchers. 19% of the OG members identify as women, which is 2 percentage points higher than the IOP average. The average age of a OG member is 44 years, this is 6 years younger than the IOP average. Since 2002, the group has co-organised a biennial conference called PHOTON (11). The conference will be the focal point for the 125 anniversary celebrations. Several talks from eminent researchers have been organised, covering the history of the group and developments over the past 125 years. This will be complemented with an array of informative and celebratory material. Dr Jolyon De Freitas, BAE Systems (UK) leads the group and is supported by a committee of 12, with demographics representing the group. Today, the group supports a range of educational and outreach efforts, including a recent award to Orbyts (12). In addition, they support around 12 professional conferences and summer schools, represent the interests of scientists to the Health & Safety Executive and award several prizes including the: Thesis, Undergraduate Essay, Optics and Photonics, Thomas Young.

One area of renewed focus is providing support to physicists affected by the recently escalated conflicts worldwide. Such conflicts not only cause physical

damage to the research environment in these areas but restrict movement and hence collaboration. Furthermore, these conflicts cause substantial psychological burden to individuals who may be distributed globally, but who have deep connection to these conflict regions. To address this imbalance, the IOP is offering funding to visit British & Irish research groups, attend Optics and Photonics meetings, and partner with the British research community.

Recently, a significant sum of money was allocated in response to professional physicists affected by one ongoing conflict. In addition, journals were made open access to researchers in this region, deadlines extended and article processing charges waived. Access to this support was via the Physics Benevolent Fund (13) and similar applications are encouraged. Today's Optical Group continues to support domestic physicists and strengthen ties with international agencies. We are using our expertise in Optics & Photonics and engaging with the broader IOP, to tackle global issues like desertification, supply of potable water, and climate change (14). We now look forward to catalysing transformative change over the next 100 years.

#### REFERENCES:

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12. <https://www.orbyts.org/>
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**Dr A. W. Goodwin-Jones,**  
**California Institute of Technology**  
**and IOP Optical Group Committee**

# Procedures for the ICO Bureau Elections

**Elections will take place during the next ICO-26 congress in Cape-Town next October.**



Prof. Roberta Ramponi, ICO Past-President, chairs the ICO Nomination Committee.

The ICO General Meeting (GM) will take place next October during the ICO26 congress in Cape Town, as already announced. Elections for ICO Bureau positions will take place in person, as traditionally, during the second session of the GM **on Thursday October 24th**, from 14:00h (SAST) and the candidates for the election of the new ICO Bureau will present there their statements. Candidates for the ICO Bureau may be nominated by the ICO Nominating Committee (NC) and/or by the Territorial Committees (TCs). No other nomination may be received. Endorsement of all candidates by their respective TCs is requested in all cases. In addition, TCs may endorse candidates from any Territory.

Nominations may be received until 24 hours before the election and after its closure, the NC establishes a final list of candidates. Each candidate must provide the NC with a short curriculum vitae and a statement.

The elections will be conducted by the ICO Past-President, who chairs the NC and is in charge of vote counting. In the case of a tie for any vote, the elder candidate is declared elected. For any vote, if the number of candidates is equal to the number of seats, the NC Chairperson may decide that there is no vote and declare the candidate(s) elected.

The first rounds of votes with a single name on the ballot are, respectively, for the President, Treasurer, Secretary and Associate Secretary. Then, successive rounds with four names each are done for the elections of eight vice-presidents, provided that two from industry at least are picked. The remaining Vice-Presidents representing the International Organisation Members are appointed by their respective Organisations.

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

COUNTRY	SHARES	VOTES	COUNTRY	SHARES	VOTES	COUNTRY	SHARES	VOTES
Argentina	3	2	Greece	3	2	Poland	4	3
Armenia	1	1	Hungary	3	A	Portugal	2	2
Australia	6	3	India	4	3	Romania	1	1
Belarus	2	A	Indonesia	1	1	Russia	18	6
Belgium	4	A	Ireland	3	2	Singapore	3	2
Brazil	5	3	Iran	1	A	Slovak Rep.	2	2
Canada	8	4	Israel	4	3	Spain	6	3
China	11	5	Italy	12	5	Sudan	1	1
Colombia	2	2	Japan	15	5	Sweden	8	4
Cuba	1	1	Korea	4	3	Switzerland	6	3
Czech Rep.	2	2	Latvia	1	1	Taipei	3	A
Denmark	4	3	Lithuania	1	A	Tunisia	1	1
Ecuador	0	A	Mexico	3	2	Turkey	1	A
Estonia	1	1	Moldova	1	A	Ukraine	2	2
Finland	4	3	Morocco	0	A	U.K.	12	5
France	15	5	Netherlands	4	A	USA	27	6
Germany	15	5	N. Zealand	3	2	Venezuela	2	2
Ghana/ Africa	1	A	Norway	4	3			

Number of delegates of each ICO Territorial Committee. Any error detected in the above list must be reported to the ICO Secretariat ([secretariat@e-ico.org](mailto:secretariat@e-ico.org)).

# AOP 2024 Celebrated in Aveiro, Portugal

Two ICO awards were delivered at the meeting.



Prof. Jorge Ojeda-Castañeda from Universidad de Guanajuato (Mexico) received the ICO Galileo Medal Award 2020 at the congress.

## Contacts

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

### Bureau members (2017-2020)

**President** R Ramponi

**Secretary** H. Michinel,

Escola de Enx. Aeroespacial  
Universidade de Vigo, Campus  
de Ourense (Spain)

e-mail: hmichinel@uvigo.es

**Past-president** Y Arakawa

**Treasurer** J Niemela

**Assoc. Secretary** F Höller

**Vice-presidents, elected**

Q Gong, J Harvey, N Kundikova

S Otero, S-H Park, A Podoleanu,

L Sirko, M Zghal,

**Vice-presidents, appointed**

K D Choquette, J C Howell, C

Londoño, E Rosas, P Urbach, G

von Bally, A Wagué,

**IUPAP Council representative**

C Cisneros

**Editor in chief** H Michinel

**Editorial committee**

W T Rhodes, Florida Atlantic

University, K Baldwin, Australian

National University, Australia;

J Dudley, Université Franche-

Comté, France



The 6th International Conference on Applications of Optics and Photonics took place from July 16th till 19th 2024 at the University of Aveiro, in Aveiro, Portugal. It was the 6th edition of previous successful meetings, which started upon the extraordinary success of the first International Conference on Applications in Optics and Photonics, AOP2011, organized by the Portuguese Society for Optics and Photonics, SPOF, at the University of Minho followed Aveiro Faro, Lisbon and Guimarães. It has been the major optics conference in Portugal in 2024 and one of the most important at world level, aiming at discuss the recent progress and to establish a view on the future of all fields of optics and photonics. 174 participants from 31 countries presented 185 contributions in areas with enormous potential in optics and photonics ranging from archeology to industry or from biomedicine to telecommunications amongst many other fields such as image digitalization and processing,

instrumentation, Lasers, metrology or nonlinear optics.

Two ICO Galileo Galilei Medal Awards were delivered by the ICO Secretary General at the conference: 2020 award to Prof. Jorge Ojeda-Castañeda "for his elegant insightful contributions in the development of phase-space analysis self-imaging and diffractionless beams, pioneering groundwork for computational imaging, for discovering class of functions providing extended depth-of-field, and for designing nonconventional devices employing varifocal lenses under significantly unfavorable circumstances" and 2022 Medal to prof. Chittur S. Narayanamurty "for outstanding contribution to speckle interferometry, optical metrology, optical testing, digital holography and adaptive optics, achieved under comparatively difficult circumstances".

**Prof. Manuel Costa**  
**SPOF President and**  
**Chairman of AOP2024**



Some participants at AOP2024 in Aveiro, Portugal.

## Forthcoming events with ICO participation

Below is a list of forthcoming events with ICO participation.

For further information, visit their official websites listed below.

### 21-24 October 2024

**XXVI International Commission for Optics World Congress (ICO-26)**

Cape-Town, South Africa

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<https://ico26.com>



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.