

Report of Affiliated Commission AC.1 for 2015-16

Affiliated Commission AC.1: The International Commission for Optics (ICO)

The International Commission for Optics (ICO), founded in 1947, is an Affiliated Commission of the International Union of Pure and Applied Physics (IUPAP) and a Scientific Associate of the International Council of Science (ICSU). Its objective is to contribute to the progress in the field of optics and photonics. The Commission has 53 Territorial Committee Members (including 13 Associate Members) and 7 International Organization members. The governing body of ICO is its General Assembly, which normally holds meetings every three years in connection with an international conference on optics. In the interim between General Assembly meetings, the conduct of the Commission is the responsibility of the [ICO Bureau](#).

In its capacity as a member of IUPAP and ICSU, the ICO supported, from its inception in 2009, the International Year of Light (IYL) initiative, actively promoting it through IUPAP and ICSU, essential steps on the way to securing the support of the UNESCO Executive Board. In the final stage ICO asked its Territorial Representatives to seek IYL initiative support from their ambassadors to the United Nations. In 2015 the ICO actively contributed to the celebration of the International Year of Light and Light-based Technologies (IYL2015). More than half of the ICO Bureau and over 30 other members of the ICO family attended the opening ceremony of the IYL in Merida, Mexico. In addition, the ICO provided more than a dozen national contacts for the IYL Secretariat and created an ICO Award for the promotion of optics and photonics for young people in the ICO Territories. Particular emphasis was given to activities sustainable beyond 2015 and replicable in other territories. A prize of \$5000 was awarded to the Spanish Optical Society (SEDOPTICA) for secondary school outreach activities using the European Commission-funded Photonics Explorer Kit. The Cuban ICO Territory was awarded a prize for Optics & Photonics trainees—scientists of the future in Havana. The Cuban initiative taught young people how to operate telescopes and to understand how to localize the brightest night-sky objects, including planets, satellites, constellations, and comets, and to learn practical methods of orientation using the most important stars and the main rules of the Earth's movement. Another award went to the IIS Cavazzi sez. Liceo Scientifico, Pavullo, a secondary school in Italy, which organized a one-day science fair called "Amazing Light" for middle and high school students.

In addition to the thousands of activities organized worldwide by ICO Territories during the IYL 2015, the ICO contributed to the realization of the conference [Education and Training in Optics and Photonics \(ETOP 2015\)](#) in Bordeaux, France (29 June – 2 July 2015), where the ICO held its annual Bureau meeting.

In 2016, the ICO held its annual topical meeting jointly with the 117th annual meeting of the Deutsche Gesellschaft für angewandte Optik (DGaO) at the [International Conference on Applied Optics and Photonics 2016](#) in Hanover, Germany (17-21 May 2016). The opening ceremony of the meeting was attended by Dr. Gabriele Heinen-Kljajic, Minister for Science and Culture, Lower Saxony, who highlighted the inclusion in the conference program of a session on Women in Optics and Optics in the Developing world. Nobel Prize recipient Stefan Hell

contributed with a plenary lecture. The ICO held an award ceremony for the ICO Prize awardee 2015, Aydogan Ozcan, Chancellor's Professor and HHMI Professor in the Electrical Engineering Department of the University of California (UCLA), "for his seminal contributions to biophotonics technologies impacting computational microscopy and digital holography for telemedicine and global health applications." Also honored at the ceremony was the 2015 recipient of the IUPAP Young Scientist Prize in Optics, Dr Frank Koppens from ICFO, The Institute of Photonic Sciences in Castelldefels (Barcelona), Spain, for "his remarkable, outstanding, groundbreaking, pioneering and numerous contributions to Nano-Optoelectronics".

During the period 2015-2016, the ICO also co-sponsored the following events:

- [Winter College on Optics: "Light: a Bridge between Earth and Space"](#), ICTP, Trieste, Italy, 9–20 February 2015
- [International Conference on Optics and Photonics \(ICOP 2015\)](#)
Calcutta, India, 20–22 February 2015
- [Lighting UP Africa with Lasers, Optics, and Fibres \(LUPA'2015\)](#)
Carthage, Tunisia, 15–21 March 2015
- [Discussions on Nano & Mesoscopic Optics \(DINAMO-2015\)](#)
El Chalten, Argentina, 8–12 April 2015
- [International Conference on Optical and Photonic Engineering \(icOPEN 2015\)](#)
Singapore, 14-16 April 2015
- [International Conference "Micro- to Nano-Photonics IV - ROMOPTO 2015"](#)
Bucharest, Romania, 1-4 September 2015
- [Mexican Optics and Photonics Meeting "MOPM 2015"](#)
Leon, Mexico, 9-11 September 2015
- [OptoAndina 2015](#)
Quito, Ecuador, 11-13 September 2015
- [Twelfth International Conference on Correlation Optics "Correlation Optics '15"](#)
Chernivtsi, Ukraine, 14-18 September 2015
- [20th Microoptics Conference \(MOC'15\)](#)
Fukuoka, Japan, 25-28 October 2015
- [Winter College on Optics: Optical Frequency Combs - from multispecies gas sensing to high precision interrogation of atomic and molecular targets](#)
ICTP, Trieste, Italy, 15-16 February 2016
- [ODF'16](#)
Weingarten, Germany, 28 February – 2 March 2016
- [International Symposium "Optics and its Applications"\(OPTICS 2016\)](#)
Yerevan-Ashtarak, Armenia, 25 – 28 July 2016
- [2nd International Seminar on Photonics, Optics and its Applications \(ISPhOA 2016\)](#)
Legian-Kuta, Indonesia, 24–25 August 2016