



NEWSLETTER



COMMISSION INTERNATIONALE D'OPTIQUE • INTERNATIONAL COMMISSION FOR OPTICS

See you at our 20th Congress in August



A general view of the Changchun Institute of Optics, Fine Mechanics and Physics (CIOMP), where ICO-20 will be held on 22–26 August.



A spectacular view of the Changbaishan Mountain ("Ever White" in Chinese) located in the Jinlin province of China.

The 20th Congress of ICO will meet in Changchun, China, on 21–26 August 2005. This traditional Congress in optics started 57 years ago. Indeed, the first official meeting of ICO took place in Delft, the Netherlands, on 12–17 July 1948, at the Physics Laboratory of the Delft Technische Hogeschool. Forty-four delegates from 11 countries attended the meeting.

The ICO Congress consists of a scientific meeting and a business part, known as the ICO General Assembly. The scientific meeting is expected to be the largest ICO event ever with more than 1000 participants from all over the world. It will, as usual, cover all areas of optics, photonics, and related interdisciplinary topics and industrial applications, providing an outstanding opportunity to review progress and challenges in our discipline.

The Congress is sponsored by the Chinese Optical Society and the Changchun Institute of Optics, Fine Mechanics and Physics (CIOMP). CIOMP is a multidisciplinary base institute mainly engaged in fundamental research, applied fundamental research, engineering technology research and high technologies. Nowadays it develops rapidly toward acknowledgment and high-technology innovation.

ICO-20 is co-sponsored by the Chinese Academy of Science, the Chinese Academy of Engineering, the Chinese Association of Science and Technology, the National Natural Science Foundation of China, IEEE/LEOS Asian office, EOS, OSA, the Optical Society of Korea, the Optical Society of Japan, the Optical Society of Russia (the Siberian branch), OWLS and SPIE. A major exhibition on local, national, Asian and international optical industries is expected to provide a unique opportunity for the exciting atmosphere and knowledge of the current optical

industries market in this region.

The city of Changchun, located to the north-east of Beijing (around 1000 km away) in the Chinese province of Jinlin (part of the old Manchuria), is a dynamic, modern and industrial Chinese city. For example, it has the largest automotive industry in China.

More than 120 world-class invited speakers will present an overview of their field, and the recipients of the recent ICO Prizes and ICO Galileo Galilei awards will present their award lectures at the special plenary session on 22 August. The early registration deadline is 1 July and it is advisable to book accommodation by then and in any case no later than 1 August. Practical information, and the advance programme, can be found at www.conference.ac.cn/ico20.html.

Delegates from all the ICO Territorial Committees will meet twice during ICO-20 and review ICO activities and policies, admit new members and elect the new Bureau that will hold office for the next triennium 2006–2008. At every ICO General Meeting, the General Assembly elects the president, secretary, associate secretary, treasurer and vice-presidents for a three-year term. The chairperson of the Nominating Committee, Prof. Arthur Guenther, ICO past-president, has written to the Territorial Committees and requested nominations and endorsements for all positions.

Of course, representation on the ICO Bureau is open to all members and it is hoped that a fair geographical distribution, as well as a good balance with regard to professional activity, will be reached. The election procedure is detailed in the ICO Statutes and in the ICO Rules and Codes of Practice, both of which can be found on the website, or can be obtained from the ICO Secretariat.

Sarun Sumriddetchkajorn wins ICO/ICTP 2005 award

Every year the ceremony awarding the ICO/ICTP Prize takes place on the occasion of the Winter College, held in February at the International Centre for Theoretical Physics (ICTP) in Trieste in Italy. For the year 2005 the ICO/ICTP Prize has been awarded to Dr Sarun

Sumriddetchkajorn, a researcher from the National Science and Technology Development Agency (NSTDA), Pathumthani, Thailand's Ministry of Science and Technology.

Sumriddetchkajorn was born in 1973. In 2000 he presented his PhD dissertation at the



After the ICO/ICTP Award ceremony, from left to right: Maria J Yzuel, Gallieno Denardo, Sarun Sumriddetchkajorn, recipient of the 2005 award, and Nabeel Riza.

College of Optics and Photonics (CREOL) in Florida, US, under the supervision of Nabeel Riza. His main subject of research was multi-wavelength fibre-optic switch array retro-reflective structures, under both theoretical and experimental studies to analyse optical crosstalk level.

Upon his return to Pathumthani in Thailand he pursued his work and organized activities, both scientific and professional, to promote optics and photonics in his country. He is currently a full-time scientist at the Thai National Electronics and Computer Technology Centre (NECTEC) where he develops both academic and research activities. Sumriddetchkajorn won Thailand's Young Scientist Award for 2004. He received it in a ceremony in August of that year, which was attended by some members of Thailand's royal family.

The ICO/ICTP Prize Committee decided that Sumriddetchkajorn is of outstanding merit, as a young researcher from a developing country who has mainly made his scientific contributions in his country of origin. The citation reads: "For his achievements in applying Photonics and Micromechanics to Bio-medical Devices and Telecommunications. His commitment in diffusing the interest for Optics and Photonics in Thailand deserves a special mention."

After the award ceremony, Sumriddetchkajorn delivered an invited lecture and explained his most noteworthy achievements, including the recent development of an optical digital sensor based on the confinement of light in a planar waveguide, to be used as reference signal reception-emission. The device is an optical touch switch based on total internal reflection (TIR) in a Dove prism. The key features include ease of implementation, prevention of the light beam from becoming incident directly on the user's eyes, and the ability to

accept both strong and weak mechanical forces from users. The device presents an interesting characteristic as it exhibits a low optical loss of 0.4dB. In addition, two ways to remove the finger from the touching surface are implemented. The applications will improve society because they will help disabled people.

This award ceremony is a relevant part of the activities carried out at the Winter College. The 2005 (7–18 February) one was dedicated to "Optics and Photonics in Nanoscience and Nanotechnology". It was co-sponsored by the International Commission for Optics (ICO), the Optical Society of America (OSA), the International Society for Optical Engineering (SPIE), the International Society on Optics Within Life Sciences (OWLS) and the Central European Initiative (CEI).

The directors of the college (Vittorio Degiorgio – Dip. di Elettronica, Università di Pavia, Italy; Richard De La Rue – Department of Electronics, University of Glasgow, UK; Kailash C Rustagi – Indian Institute of Technology, Mumbai, India) and local organizer Gallieno Denardo carried out a remarkable task in creating a quite sounded college with more than 80 participants from all over the world and, in particular, from developing regions. The 17 lecturers gave talks on the most relevant fundamental and applied aspects in the field relating to optics, nanoscience and nanotechnology.

As in previous colleges, LAMP seminars gave all the attendees the opportunity to present their current research subjects and created a highly interactive atmosphere. The traditional party offered by ICO contributed to the social activities of this school along with a magnificent concert, organized by Gallieno Denardo, and offered by the Trieste Camerata with an amazing programme from medieval songs up to 20th century gospel. For more information see www.ictp.trieste.it.

New Green Book *Towards ICO-20* has been published

OPTICS in the WYP 2005
www.ico-optics.org

World Year of PHYSICS 2005

"ICO, The place where the world of optics meets"

TOWARDS ICO-20
EN ROUTE VERS CIO-20

JUNE 2005

Edited by the ICO Secretary
Maria L. Calvo
Madrid, Spain

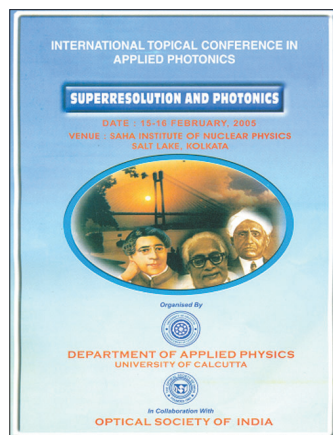
Every three years, at the end of the triennial period, the ICO Secretariat edits a traditional Green Book with the title *Towards ICO-*. The Green Book is our publication of reference where one can check the activities developed by ICO during a determined period. It contains as well an up-to-date list of supported meetings, ICO Bureau representatives, minutes of ICO Bureau meetings, and news from the ICO Territorial Committees, as well as any other subject that could have a general interest for our community, including the preparation of the forthcoming General Assembly and the interim report of the Nominating Committee.

This year we have the great news of having a new publisher for *Towards ICO-20* (period 2002–2005). This is Institute of Physics Pub-

lishing (IOPP), located in Bristol, UK. This will result in a better edition with improved quality. The ICO Secretariat would like to thank Geraldine Pounsford, publisher of *Opto&Laser Europe*, and her team for all the facilities accorded to achieve a nice edition.

We cannot forget in these acknowledgments all our colleagues from the ICO Bureau and Territorial Committees who have spent precious time on helping us achieve interesting book contents. All ICO Territorial Committees representatives will receive in July a number of copies to be distributed among the members of the local committees. The number mailed is limited because of mailing costs; however, e-mail icosec@fis.ucm.es if you would like the ICO Secretariat to supply further copies.

News of the ICO Territorial Committees



India was the location of the International Topical Conference in Applied Photonics "Superresolution and Photonics".

During the period 2004–2005 various important and interesting activities concerning ICO members have taken place. Here is a summary.

We have welcomed two new associate members

- **Moldova**, an associate in 2004, is now represented by Prof. **Andrei Andries**. He is the director of the Centre of Optoelectronics at the Institute of Applied Physics, Academy of Sciences of Moldova, in the capital city Chisinau.
- **Ecuador**, an associate in 2005, is now represented by **Nikolai Espinosa**. He is a PhD research scientist and teacher at the Scientific Research Centre of the Army Polytechnic School, located in the capital city Quito.

These two new associate members are playing an important role in our coverage of activities in optics and photonics all over the world and our strengthening of mutual co-operation. It is greatly expected that they will be admitted as full members at the occasion of the forthcoming ICO General Assembly to be held in Changchun, China, on 22–25 August 2005. Once again, our most sincere welcome to these two communities.

The Territorial Committees

- **India**: India has developed various activities during the WYP2005. Among them we can mention the International Topical Conference in Applied Photonics "Superresolution and Photonics", held 15–16 February 2005 at the Saha Institute of Nuclear Physics, Salt Lake, Kolkata (West Bengal). The meeting was organized by the Department of Applied Physics at the University of Calcutta and in collaboration with the Optical Society of India (OSI). This meeting had the support of ICO.

The general chair, Prof. **L N Hazra**, the general secretary of OSI, organized this topical conference with an important presence and contributions from Indian scientists and colleagues all over the world. Nine plenary talks, 12 invited talks and 29 communications constituted an interesting forum on a sounded topic that is now proving relevant to the Indian scientific community.

The technical digest contains the scope of all the contributions. On its first page one can read the reproduction of a contribution written

by C V Raman in 1930 on Science and Calcutta. One can quote: "Science derives her strongest impulses from the desire to serve human needs as well as from the purely philosophic desire to understand nature more deeply." There is no doubt that this spirit is maintained today.

- **Ireland**: the new president of the Irish Territorial Committee is **John McInerney**. He is professor and head of the Department of Physics, University College Cork, at the National University of Ireland.

- **Japan**: the new president of the Japanese Territorial Committee is **Koichi Iwata**. He is a professor at the College of Engineering of the Osaka Prefecture University.

- **Sweden**: the new president of the Swedish Territorial Committee is **Fredrik Laurell**. He is a professor at the Royal Institute of Technology (KTH) where he develops his research activities at the Laser Physics Group, Department of Laser Physics and Quantum Optics, AlbaNova University Centre. The new secretary of the Swedish ICO Committee is **Ulf Olin**. He is PhD chief technical officer at CernoluX AB. Enhanced contacts are provided as well by **Klaus Biederman**, who is a liaison between the ICO Committee and the Swedish Academy of Sciences. He is a professor at the Royal Institute of Technology, Department of Biomedical and X-Ray Physics, Visual Optics Group, AlbaNova University Centre, and a former vice-president of the ICO Bureau (terms: 1981–1984 and 1984–1987).

- **United States Advisory Committee for ICO**: the USAC/ICO has elected a new secretary, **Bobbie Lively**. He will serve at the USAC/ICO Secretariat for the period 2005–2006. Lively is SPIE manager of board and committees. Also, Prof. **Jagdish P Singh**, from Mississippi State University, was awarded the USAC-ICO Traveling Lecturer Grant. Singh has visited several institutions throughout India, including the Indian Institute of Technology (IIT) in Madras, IIT Kanpur, the Cochin University of Science and Technology, Allahabad University, and Banaras Hindu University. More information can be found at www.usac-ico.org/.

Corrections to news about the ICO Territorial Committees should be reported to the ICO Secretariat: icosec@fis.ucm.es.

Report of the AIC'05 General Meeting held in Spain

The 10th Congress of the International Colour Association: AIC Colour 05 was held in Granada in Spain in May 2005.

The Congress belongs to a series of meetings organized by AIC every four years. The Congress was also hosted by the Spanish



Opening ceremony of AIC Colour 05, in Granada in Spain. Pictured from left to right: J Pujol, president of the Colour Committee of the Spanish Optical Society; AIC president P J Alessi; M Díaz, vice-rector of the University of Granada; J Romero, chair of the Congress; J L Nieves, programme co-chair.

Optical Society and included the 7th International Symposium on Multispectral Colour Science (MCS'05). AIC is an international organization currently made up of 24 countries and 12 observers. ICO sponsored this Congress with the main aim of supporting and dedicating efforts toward areas of science that have common interests with optics and moreover that are relevant because of its connections with industry and education. ICO made grants to young researchers from developing countries who attended the conference.

The interdisciplinary nature of the conference was evident from the wide-ranging subjects covered in a total of 36 parallel sessions (12 of them qualified as symposia). These included such varied topics as colour-appearance models; colour management; colour imaging; the multispectral processing of chromatic information; the colorimetry applied to industries dedicated, for example, to food processing and analysis; materials such as textiles and ceramics; colour-representation systems and colour-difference formulas; colour in education; colour vision; colour physics; colour in

interior design; colour within the urban environment; colour in object design; colour restoration; the use of colour as an element of artistic expression; and colour in different popular cultures. The variety of topics produced high interest and interaction among the participants, who numbered more than 400.

ICO was represented by the secretary general, Maria L Calvo, who had a great opportunity to exchange ideas with colleagues and current AIC representatives. It is only right that we congratulate in these pages Javier Romero (general chair) and all his colleagues from the Department of Optics of the Faculty of Sciences in Granada University on their great work.

The publication of two volumes of proceedings from the conference will serve as well to disseminate the latest developments in this active area. The policy of supplying proceedings to educational centres from developing countries has also been applied generously by the local organizers.

The unique atmosphere of Granada city added to the great success of the Congress.

Contacts

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

Bureau members (2002–2005)

President R Dändliker

Past-president A H Guenther

Treasurer G T Sincerbox

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Associate secretary A T Friberg

Vice-presidents, elected

A A Friesem, N Gaggioli,
G F Jim, B Y Kim,
M Kujawinska, G C Righini,
L Wang, I Yamaguchi

Vice-presidents, appointed

H H Arsenault, G von Bally,
A A Sawchuk, T Tschudi,
A Wagué, A M Weiner

Senior adviser (ad personam)

P Chavel

IUPAP Council representative

Y Petroff

Forthcoming events with ICO participation

21–26 August 2005

ICO-20, Triennial Congress of the International Commission for Optics “Challenging Optics in Science and Technology”

Changchun, China.

Contact: Jianlin Cao.

E-mail: caojl@ciomp.ac.cn.

Web: www.conference.ac.cn/ico20.html.

6–9 September 2005

7th Int’l Conference on Correlation Optics

Chernivtsi, Ukraine.

Contact: Oleg V Angelsky.

E-mail: oleg@optical.chernovtsy.ua.

Web: www.itf.cv.ua/corrupt05/.

5–7 October 2005

MUSCLE XIV (Multiple Scattering Lidar Experiment)

Quebec City, Canada.

Contact: Dr Gilles Roy.

E-mail: gilles.roy@drdc-rddc.gc.ca.

17–20 October 2005

International Topical Meeting on Optoinformatics

St Petersburg, Russia.

Contact: Dr Ekaterina Yutanova.

E-mail: conf_optics@mail.ifmo.ru.

Web: <http://ysa.ifmo.ru/tmo2005/>.

24–26 October 2005

9th International Conference on Education and Training in Optics and Photonics (ETOP)

Marseille, France.

Contact: Serge Ungar.

E-mail: serge.ungar@popsud.fr.

Web: www.ETOP2005.org/.

12–15 December 2005

International Conference on Optics and Optoelectronics (ICOL-2005)

Dehradun, India.

Contact: J A R Krishna Moorthy.

E-mail: krish@irde.res.in.

Web: www.icol2005.com/.

4–7 September 2006

ICO Topical Meeting on Optoinformatics 2006

St Petersburg, Russia.

Contact: Dr Ekaterina Yutanova.

E-mail: Pavlov@soi.spb.ru.

26–29 October 2006

7th International Young Scientists Conference “Optics and High Technology Material Science SPO 2006”

Kiev, Ukraine.

Contact: Dr Viktor O Lysiuk.

E-mail: lysiuk@univ.kiev.ua.

