



ICO 2002 Galileo Galilei Award winner: Rashid A. Ganeev

THE 2002 ICO GALILEO GALILEI AWARD has been awarded to Dr. Rashid A. Ganeev. Rashid A. Ganeev was born in Tashkent, Republic of Uzbekistan in 1955. He got his M.Sc. degree in Engineering Physics from Tashkent Polytechnic Institute in 1977 and Ph.D. degree in Physics and Mathematics in 1987 from the Academy of Sciences of Uzbekistan. In 1977 he joined the Institute of Electronics, Academy of Sciences of Uzbekistan, Tashkent, where he became an engineering. In 1998 he became principal scientist at the Institute for Physics of



Polymers, Physical and Technical Institute, Samarkand State University.

Dr. R. A. Ganeev has published over 100 research papers in internationally reputed journals. His current research interests are in the fields of Nonlinear Optics and Laser Physics. The Galileo Galilei Award committee recognized his sound contributions, both theoretical and experimental, for developing new methods for nonlinear frequency conversion of high power laser radiation in non linear crystals and characterization of nonlinear optical properties of metal, semiconductor and polymer media. All mentioned work has been developed under comparable unfavorable conditions.

Dr. Ganeev has undertaken and developed extensive major lines of research in the above mentioned subjects. In the first subject he obtained a maximum energy efficiency of frequency conversion of a high-laser beam (1054 nm) in KDP and ADP crystals, of the order of 90% for second harmonic generation (527 nm), 80% for third harmonic generation (351 nm), 92% for fourth harmonic generation (263 nm) and 20% for fifth harmonic generation (211 nm). The main result of these investigations is the understanding of principles, which permit to increase the frequency conversion of laser radiation in crystalline media. In the second general subject he measured nonlinear refractive indices, nonlinear susceptibilities and nonlinear absorption coefficients of colloidal metal solutions, semiconductor chalcogenide films and fullerene-doped polyimide films and solutions at the wavelengths of Nd:YAG laser radiation and its second harmonic. Ganeev has been awarded in 1994 by the International Science Foundation Grant, in 1997 by the Third World Association Scheme Grant, in 1998 by the State Committee for Science and Technology of Uzbekistan Prize and in 2000 by

the Japanese Ministry of Science and Technology. Ganeev has conducted scientific leadership in the establishment of the center of nonlinear optical studies in Uzbekistan. Now this center combines the efforts of various groups from Uzbekistan and various foreign countries academic institutions and industries as with Germany, India, Japan, Malaysia, Singapore, Russia and other NIS countries.

The Chair of the ICO Galileo Galilei Award Subcommittee for 2003-2005 is Prof G. von Bally, Laboratory of Biophysics, University of Muenster, D-48129 Muenster, Germany, phone +49 251 8356888, fax +49 251 8358536, e-mail biophys@gabov.uni-muenster.de or bally@univ-muenster.de. Calls for nominations can be found on the ICO website (<http://www.ico-optics.org/awards.html>).

New ICO Book Published

FOLLOWING A DECISION TAKEN AT THE 1987 ICO BUREAU MEETING, ICO established a series of books. One volume is normally published every three years, with the ICO President, Past-President or a former President acting as the Editor. The fifth book in the series appeared under the title "International Trends in Applied Optics", edited by A.H. Guenther. More information can be found on the web : www.spie.org/bookstore/pm119.

ICO Congress met in Florence, Italy

The Florence meeting

ICO HOLDS ITS CONGRESS EVERY THREE YEARS, consisting of a scientific meeting and the triennial business meeting of the Commission. Over 450 delegates met for the scientific part of the event, which consisted of five parallel scientific sessions and several poster sessions throughout the week.

More than 550 papers were submitted for presentation at ICO XIX, and the Program Committee selected round 500 of them. It included 3 plenary lectures and 3 papers presented by ICO prize winners, about 280 oral presentations (including 24 invited papers) and 240 poster presentations.

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During the week, an excursion in the medieval city of Sienna and in a typical villa was organized for all participants. Moreover, the banquet of the ICO Meeting took place in a typical villa too.

ICO gratefully acknowledges the work of Giancarlo C. Righini (General Chair), Anna Consortini (Program Chair), Joseph W. Goodman (International Advisory Committee Chair) and their colleagues of the conference committees for the considerable work they did, which resulted in an enjoyable and fruitful event indeed.

New members

FOR THE LAST THREE YEARS, three Territorial Committees, Estonia, Lithuania and Latvia, have applied as ICO Members: they have been accepted unanimously as members by the ICO General Meeting in Florence. The presidents of the Estonian and Latvian territorial committees are respectively Prof. Peeter Saari from the University of Tartu and Prof. Janis Spigulis from the University of Latvia.

Moreover, Greece, Tunisia and Morocco have been accepted as "Associate Members". The Bureau has been authorized by the General Meeting to transform associate membership into full membership during the triennium as soon as all required conditions are fulfilled.

In the "International Organization Member" category, the LAM Network (African Laser, Atomic, Molecular and Optical Physics Network, supported by the Abdus Salam International Centre for Theoretical Physics) and the OWLS (International Society on Optics Within Life Sciences) have been accepted as members. Each international Society member designates its representative to the ICO Bureau. The LAM Network appointed Prof. Ahmadou Wagué of University Cheikh Anta Diop (Dakar, Senegal) and OWLS appointed Prof. Gert Von Bally of the University of Muenster, Germany, as their respective ICO Vice-President.

More information and photos can be found on the ICO 19 web page: <http://ICO19.fi.cnr.it>

New ICO Bureau

During the General meeting, the new ICO Bureau has been elected by the members. It consists of:

President: R. Dändliker (Switzerland)

Past President: A.H. Guenther (USA)

Secretary: M.L. Calvo (Spain)

Associate Secretary: A. Friberg (Finland)

Treasurer: G.T.Sincerbox (USA)

IUPAP Executive Council Delegate: Y. Petroff

Vice Presidents:

H.H. Arsenault (appointed by SPIE)

A.A. Friesem (Israel)

N.G. Gaggioli (Argentina)

G.F. Jin (China)

M. Kujawinska (Poland)

B.Y. Kim (Korea, from industry)

G.C. Righini (Italy)

A.A. Sawchuck (appointed by OSA)

T. Tschudi (appointed by EOS)



(Above) Some members of the new and old bureau at the ICO-19 meeting, Florence, Italy, 25-28 August 2002.

(Right) A view of the Sienna Plaza, a medieval city, visited during the excursion in the ICO-19 meeting August 2002.



G. Von Bally (appointed by OWLS)
A. Wagué (appointed by the LAM Network)
L.L. Wang (Netherlands, from industry)
A.M. Weiner (appointed by IEEE/LEOS)
I. Yamaguchi (Japan)

OPTICS IN LATIN AMERICA

(A more complete version of this document can be read on the ICO web : www.ico-optics.org)

THE FACT OF ORGANIZING OPTILAS (Encuentro Latinoamericano sobre Optica, Láseres y sus Aplicaciones) during 17 years and RIAO (Reunión Iberoamericana de Optica, meeting where Spain (S) and Portugal (P) also participated) during 9 years could be a sign that "regional optical community" of Latin-America, Spain and Portugal is quite developed. The decision taken for organizing both meetings together shows also a high level of organization.

Summarizing

[Source: *Science Citation Index* from 1974 to 08/31/2000 (09/22/2000)]:

- The important contribution from Brazil to optical reviews, that has no relation with its participation in regional meetings. Brazil has reached 24 % of the publications while contributing only 7 % in regional meetings
- Mexico, whose publications have not reached 13%, has presented a 33% of communications.
- Argentina contributes to the regional events with 19 % and publishes somewhat less than 11%.
- Spain hands in 18% of the communications to the regional meetings and publishes somewhat less than 47%.
- Colombia and Cuba show similar results. They contribute with 0.7% and 0.6% of the published papers whereas 7.5% and 8.5% of the communications have been presented to regional meetings.
- Portugal contributes with 5% of the publications and 0.8% of its communications.

These comparative results show how each national community decides to spread their achieved results. Besides, it seems rather relevant to point out the fact that the Brazilian and Portuguese optical communities are now aware that regional events are activities in which they are and will be unconditionally welcome.

Web links on standards in optics

THE ICO STANDARDS COMMITTEE has identified the following sources of valuable information on standards in Optics.

<http://www.iso.org/>
(ISO: International Organization for Standardization)
<http://www.optstd.org/>
(OEOSC: Optics and Electro-Optics Standards Council)
<http://www.nist.gov/>
(NIST: National Institute of Standards and Technology)
http://www.nist.gov/public_affairs/standards.htm
<http://www.ansi.org/>
(ANSI: The American National Standards Institute)
http://www.ansi.org/public/std_info.html
<http://www.cenorm.be/>
(CEN: The European Committee for Standardization)
<http://www.osa.org/>
(OSA: The Optical Society of America)
<http://www.osa.org/membersonly/links/Links.CFM>
<http://spie.org/>
(SPIE: The International Society for Optical Engineering)
<http://optics.org/> (Optics.org)
http://optics.org/research/standards_home.cfm
<http://www.astm.org/>
(ASTM: American Society of Test and Materials)
<http://www.astm.org/cgi-bin/SoftCart.exe/index.shtml?E+mystore>
<http://www.nssn.org/>
(NSSN: National Standards Systems Network - A National Resource for Global Standards)
<http://www.laserinstitute.org/>
(LIA: Laser Institute of America)
International Laser Standards
<http://www.laserinstitute.org/training/>
<http://www.cenelec.org>
(CENELEC: the European Committee for Electrotechnical Standardization)
<http://www.cenelec.org/info/links.htm>
<http://annex.jsap.or.jp/OSJ/index-e.shtml>
(Optical Society of Japan)

National Standardizing Laboratories:

<http://www.corm.org/>
(CORM: Council for Optical Radiation Measurements)
<http://www.nrc.ca/>
(NRC: National Research Council of Canada)
<http://www.npl.co.uk/>
(NPL: The National Physical Laboratory, UK)
<http://www.ptb.de/>
(PTB: Physikalisch- Technische Bundesanstalt, Germany)

ICO Traveling Lecturer Program : Call for applications

ICO HAS ESTABLISHED IN 1988 A TRAVELING LECTURER PROGRAM to promote lectures on modern aspects of optics in interested territories by scientists of international reputation with good lecturing skills. The program is aimed specially at developing nations, but is not necessarily restricted to them. It is hoped that visits will lead to closer collaboration between the lecturer and the scientists of the destination territory. As a rule, it is expected that the lecturer's local expenses will be met by the host institution and that ICO's contribution will be towards the travel costs. Generally, these grants will not be awarded simply to support international conference attendance. Within the financial limits of the budget, an ICO Committee, with the ICO Treasurer as chairperson, decides on the ICO Traveling Lecturer grants. Typically, an individual grant will be limited to US\$ 1,000 or less. This Committee in principle does not meet, but works by mail and telecommunication facilities so as to secure the fastest response compatible with good operation. Successful applicants will be asked to serve as an "ambassador" from ICO. Upon returning, the applicant will be asked to complete a trip report detailing the state of science in the visited region (active programs, schools, labs, etc.). He / She may be asked to draft a short article on his / her trip and experiences for the ICO Newsletter. Scientists or host groups interested in participating in this program should complete an application and send it by e-mail to the Treasurer of ICO with details of the proposed lecture program and ICO support requested. **Completed applications should be sent to:** Prof. Glenn Sincerbox, ICO Treasurer, P.O. Box 32576, Tucson, AZ 85751-2576, Tel: (1) 520-621-4260; Fax: (1) 520-621-4358, Email: sinbox@u.arizona.edu.

Application should include:

- Name of traveling lecturer
- Address, fax, e-mail (as applicable)
- A 1-page Curriculum Vitae and/or short biography of the lecturer
- Lecturer Travel Information (dates, locations, local host and expected local audience for each lecture)
- Funding Request
- Purpose of proposed travel
- A description of the expected benefit of the visit to the host community
- An indication on concurrent travel award applications

ICO Members

AS OF JANUARY 2003, the total Territorial Committee membership is 48 Member Territories including: Argentina, Australia, Belgium, Belorussia, Brazil, Canada, Chinese Optical Society, Colombia, Cuba, Czech Republic, Denmark, Estonia, Finland, France, Germany (Federal Republic), Ghana / West Africa, Greece, Hungary, India, Indonesia, Ireland, Islamic Republic of Iran, Israel, Italy, Japan, Korea (Republic of), Latvia, Lithuania, Mexico, Morocco, Netherlands, New Zealand, Norway, Optical Engineering Society Taipei China, Poland, Romania, Russia, Singapore, Slovak Republic, Spain, Sweden, Switzer-

land, Tunisia, Turkey, Ukraine, United Kingdom, United States of America, Venezuela.

International Society Members: the total International Society membership is 6 which are the African Laser, Atomic and Molecular Physics Network, European Optical Society (EOS), Institute of Electrical and Electronic Engineers Lasers and Electro-Optics Society (IEEE/LEOS), International Society on Optics Within Life Sciences, Optical Society of America, SPIE - the International Society for Optical Engineering.

Forthcoming events with ICO participation

10-21 February 2003

ICTP/ICO/OSA/SPIE Winter College on Biophotonics: Optical Manipulation of Molecules and Cells
Miramare - Trieste, Italy
Prof. G. Denardo, Abdus Salam Int'l Centre for Theoretical Physics, Strada Costiera 11, I-34014 Trieste, Italy
fax. +39 040 2240 443, denardo@ictp.trieste.it
<http://www.ictp.trieste.it/>

30 June - 3 July 2003

ICO Topical Meeting on Polarization Optics
Joensuu, Finland
Co-Chairs: Prof. Jari Turunen, Univ. of Joensuu, & Prof. Asher A. Friesem, Weizmann Institute of Science, Rehovot, Israel
PO'03 Secretariat: c/o Hannele Karppinen, Department of Physics, University of Joensuu, P.O. Box 111, FIN-80101 Joensuu, Finland
fax. +358 13 251 3290, icopo@joensuu.fi
<http://physics.joensuu.fi/icopo/>

5-9 October 2003

8th Int'l Conference on Education and Training on Optics and Photonics (ETOP 2003)
Tucson, Arizona
Chair: Barry L. Shoop, U.S. Military Academy, Photonics Research Ctr., West Point, NY
fax. +1 845 938-3062, barry.shoop@usma.edu
Co-Chair: Grover A. Swartzlander, Jr., Univ. of Arizona, Tucson, AZ, grovers@optics.arizona.edu
OSA, 2010 Massachusetts Ave., NW, Washington, DC 20036, USA, info@osa.org
<http://www.etoponline.org/>

13-15 July 2004

ICO International Conference, Optics & Photonics in Technology Frontier
("ICO'04 Tokyo", co-located with ODF'04 and ICOSN'04, held together with InterOpto'04)
Makuhari Messe, Chiba, Japan
Dr. Kimio Tatsuno, Hitachi Ltd., CRL, 1-280 Higashi-koigakubo, Kokubunji, Tokyo, Japan
fax. +81 423 27 7673, tatsuno@crl.hitachi.co.jp
<http://www.opticsdesign.gr.jp/>

2-8 October 2004

5th Ibero-American Meeting on Optics, and 8th Latin-American Meeting on Optics, Laser and Their Applications (V Riao / VIII Optilas)
Porlamar, Margarita Island, Venezuela
Prof. Aristides Marciano Olaizola
Centro de Fisica, Instituto Venezolano de Investigaciones Cientificas, Caracas 1020 A, Apartado 21827, Venezuela
fax. +58 212 504 1148, marciano@pion.ivic.ve

21-26 August 2005

ICO-20, Triennial Congress of the International Commission for Optics "Challenging Optics in Science and Technology"
Changchun, China
Dr. Jianlin Cao, President
Changchun Institute of Optics, Fine Mechanics and Physics, 140 Renmin Street, Changchun 130022, P.R. China
fax. +86 431 5682346, caojl@ciomp.ac.cn

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

Bureau members : President : R. Dändliker

Past President : A.H.Guenther, Treasurer : G.T. Sincerbox

Secretary : M.L. Calvo, Universidad Complutense de Madrid, Departamento de Optica, Facultad de Ciencias Fisicas, Ciudad Universitaria, E 28040 Madrid, Spain,

phone +34 91 394 4684, fax +34 91 394 4683, e-mail mlcalvo@fis.ucm.es

Associate Secretary, in charge of Meetings : A.T. Friberg, Royal Institute of Technology, Department of Microelectronics and Information Technology, Optics Section, Electrum 229 (Isafjordsgatan 22) SE-164 40 Kista, Sweden, phone +46 8 790 4191, fax +46 8 789 6672 e-mail ari.friberg@imit.kth.se

IUPAP Executive Council Delegate : Y. Petroff

Vice-Presidents, elected : A.A. Friesem, N.G. Gaggioli, G.F. Jin, B.Y. Kim, M. Kujawinska, G.C. Righini, L.L. Wang, I. Yamaguchi
Vice-Presidents, appointed : H.H. Arsenault (SPIE), A.A. Sawchuck (OSA), T. Tschudi (EOS), G. Von Bally (OWLS), A. Wagué (LAM Network), A.M. Weiner (IEEE/LEOS)