

CODATA

Newsletter 99

Committee on Data for Science and Technology

Message from Professor Huadong GUO, CODATA President

January 2011

Collaboration with GEOSS..... p.2
2010 CODATA Prize for Paul Uhler.... p.2
The 22nd International
CODATA Conference..... p.3
CODATA General Assembly..... p.3
Young Scientists 2010..... p.4
Canadian vision in support of
Young Scientists..... p.4

**CODATA WELCOMES THE
ICSU WORLD DATA SYSTEM
AS A NEW CO-OPTED MEMBER
OF CODATA**

The new ICSU World Data System Scientific Committee officially became a co-opted member of CODATA at the 27th CODATA General Assembly. CODATA looks forward to working with all our colleagues in the WDS Community over the coming years!

See <http://icsu-wds.org/>

CODATA Secretariat

5 rue Auguste Vacquerie,

75016 Paris, France

Tel: +33 1 45250496

Fax: +33 1 42881466

Email: codata@dial.oleane.com

Website: <http://www.codata.org>

*Design and Layout:
JF Macaigne for Eo Conseil*

Dear Friends,

It is indeed an honour for me to assume the mantle of Dr. Krishan Lal as President of CODATA. I first submitted a paper to a CODATA conference in 1988, but I first became formally involved in CODATA in 2004 when I joined the National CODATA Committee in China and became a member of the CODATA Executive Committee.

As I begin my term of Presidency, I fully appreciate the many challenges facing the data scientific community today. One of these is a direct result of the enormous amounts of data generated through new technologies. It is interesting to read the initial report on the founding the organization in 1966 which refers to the increase in available data as "approximately doubling every eight years".

To quote from Computing, Community, Consortium, "Today we are at the dawn of a second revolution in discovery – a revolution that will have far more pervasive impact. The focus of this new approach to science – called eScience – are data, specifically:

- the ability to collect and manage orders of magnitude more data than ever before possible;
- the ability to provide this data directly and immediately to a global community;
- the ability to use algorithmic approaches to extract meaning from large-scale data sets, and;
- the ability – and, in fact, the need – to use computers rather



Professor Huadong GUO, President

than humans to guide the hypothesis/measurement/evaluation loop of scientific discovery".

For CODATA to assert itself as a leading voice of the data science community, it must adapt and evolve to meet these challenges.

A concrete example of why this is so important is in the area of natural hazards. Natural and man-made disasters continue to increase around the world. These, in turn, affect increasing numbers of people. In order to understand more fully why this is happening, and the repercussions of these disasters from both environmental and human perspectives, one of the most critical elements is the availability of reliable and accurate data on hazards, exposure, vulnerability, and impacts. Such data are .../...

also essential to any efforts to try and prevent or limit disasters and their impacts.

As President I have identified four goals over the next four years:

- Strengthen the scientific agenda/activities of the organization through the implementation of the CODATA Strategic Plan;
- Initiate new programs and develop data-intensive research;
- Broaden the membership and reach out to relevant data centres and research institutions not engaged in the activities of CODATA;
- Increase the financial resources of the organization.

As President, I propose building on the excellent work carried out by my predecessors by:

- supporting the activities of our eleven newly-elected Task Groups;
- organizing workshops at regional and national levels focussing on these challenges;
- where appropriate, establishing Working Groups that begin to at least explore how some of the aforementioned challenges these can be addressed.

I am fully aware that I can only achieve the actions outlined above with the help and support of the CODATA Officers, CODATA Executive

Committee, the greater CODATA and ICSU families and the related science and technology community. I look forward to working with you over the coming four years and, more importantly, I rely on your future support and continued dedicated commitment to the organization to assist me in endeavouring to realise some or parts of the goals noted above.

As we start 2011 may I also take this opportunity to wish you and all your colleagues and friends the very best for 2011.

My warmest regards,
GUO Huadong

(1) Report of the Working Group on Critical Tables which recommended to ICSU the establishment of CODATA in 1966 (page one)

(2) From Data to Knowledge to Action: Enabling 21st Century Discovery in Science and Engineering. Computing, Community, Consortium, Version 13, June 18 2010 http://www.cra.org/ccc/docs/init/Enabling_21st_Century_Discovery_in_Science_and_Engineering.pdf

COLLABORATION WITH GEOSS, GLOBAL EARTH OBSERVATION SYSTEM OF SYSTEMS

CODATA, one of the Co-Chairs of the GEOSS Data Sharing Task Force (DSTF), continued its collaboration with GEO (Group on Earth Observations) leading to the VII GEO Plenary and Ministerial in Beijing, 3-5 November, 2010. The Plenary and Ministerial approved a Data Sharing Action Plan, presented to delegates by the DSTF and adopted the Beijing Declaration: "Noting with particular satisfaction, the GEOSS Data Sharing Implementation Guidelines and Action Plan and the establishment of the operational GEOSS Common Infrastructure (GCI), which significantly improves access to global Earth observation data and resources".

Immediately preceding these meetings on the 2nd of November, CODATA organized, in collaboration with the Asian Pacific Network (APN) and Center for Earth Observation and Digital Earth (CEODE) a Symposium on the Data Sharing Action Plan for GEOSS and the Benefits of Data



Exhibition booth in Beijing

Sharing. For more information see

<http://www.codata.org/GEOSS/Index-agenda02112010.html>

exhibition booth throughout the GEO meetings in Beijing. The booth was an excellent opportunity to showcase how each organization links with GEO/GEOSS, and also how the organizations are linked with each other.

ICSU, in cooperation with CODATA, WDS, Diversitas, IRDR, WCRP, GCOS, GOOS and GTOS, had a dedicated

PAUL UHLIR, RECIPIENT OF THE 2010 CODATA PRIZE

Paul Uhlir, Director of the Board on Research Data and Information at the US National Academies, was acknowledged for his achievements as a worldwide scholar in scientific data and information policy and law by becoming the 5th recipient of the CODATA Prize Award at the 22nd International CODATA Conference. For more information see **http://www.codata.org/10Conf/P_Uhlir_Codata_Prize.pdf**

CODATA applauds your achievements!

Global Scientific Data Infrastructures: The Big Data Challenges

Hotel La Palma, Island of Capri, Italy, 12-13 May 2011

Organizers: Costantino Thanos (ISTI-CNR, Italy) and Yannis Ioannidis (University of Athens, Greece).

The program features 15 invited high level scientists who will address some of the most important data challenges faced by the Scientific Data Infrastructures. They include data modeling, data service and data management challenges.

More details at **<http://datachallenges.isti.cnr.it/>**



CODATA 22
CAPE TOWN

SCIENTIFIC DATA AND SUSTAINABLE DEVELOPMENT

22ND INTERNATIONAL CODATA CONFERENCE
24-27 OCTOBER, 2010
STELLENBOSCH, CAPE TOWN, SOUTH AFRICA

The National Research Foundation, South Africa, co-hosted with CODATA this very successful event in October 2010. Over 300 participants attended from all over the world. The South African Minister for Science and Technology, Nadeli Pandor, officially opened the conference with a powerful speech addressing four core issues:

- Access to science and technology by the poor and deprived communities;
- Importance of intellectual property rights which should take into

account the traditional and indigenous forms of knowledge;

- Set up of international interdisciplinary networks to improve research and its applications, and to address relevant socio-economic issues; and
- Investment of government and scientific bodies in cutting-edge communication and storage technology.

See full speech: http://www.codata.org/10Conf/N_Pandor_Speech.pdf



Robert Kriger (NRF), Lidia Brito (UNESCO), Albert van Jaarsveld (NRF), and Krishan Lal (CODATA)

A wide variety of themes and topics were pursued across parallel sessions among which included:

- e-Science and e-Infrastructure in many countries and regions;
- Sustainable development;
- Biological, environmental and health data projects focusing on programs in Africa; and
- Interoperability and access models.

Over 30 poster presentations were displayed. Two **"One Minute Poster Madness"** sessions were organized within the framework of the

Conference Program. Each poster author was invited to give a short one minute pitch for their poster, a difficult exercise that was excellently achieved by all participants.

The full program can be viewed on the CODATA website <http://www.codata.org>

We also invite our readers to read the excellent report on the conference by Brian Mc Mahon, IUCr Delegate to CODATA. See: <http://www.iucr.org/resources/data/meeting-reports/codata-2010>

SOME HIGHLIGHTS FROM THE 27TH CODATA GENERAL ASSEMBLY

A new Executive Committee for CODATA Officers:

- President:** Huadong GUO (Chinese Academy of Sciences, CAS)
- Past-President:** Krishan LAL (India)
- Vice-Presidents:** Takashi GOJOBORI (Japan); Fedor KUZNETSOV (Russia)
- Secretary General:** Robert CHEN (USA)
- Treasurer:** Michel SABOURIN (Canada)

Ordinary Members:

- Niv AHITUV (Israel)
- John BROOME (Canada)
- Dora Ann Lange CANHOS (Brazil)
- Antony COOPER (South Africa)
- Françoise GENOVA (France)
- Sara GRAVES (USA)
- Hiro-o HAMAGUCHI (Japan)
- Mark THORLEY (UK)

CODATA TASK GROUPS 2010-2012

- Anthropometric Data and Engineering
- Data at Risk
- Data Citation Standards and Practices
- Data Sources for Sustainable Development in SADC Countries
- eGY Earth and Space Science Data Interoperability
- Exchangeable Materials Data Representation to Support Scientific Research and Education
- Fundamental Physical Constants
- Global Information Commons for Science Initiative-EU Activities
- Global Roads Data Development
- Polar Year Data Policy and Management
- Preservation of and Access to Scientific and Technical Data in Developing Countries (PASTD)

For more information see

<http://www.codata.org>

The first meeting of the new Executive Committee will take place at CODATA Headquarters in Paris in February 2011.

NEXT CODATA CONFERENCE

CODATA is delighted to announce that the 23rd International CODATA Conference and 28th CODATA General Assembly will take place in Taipei in 2012. It will be co-hosted with the Academia Sinica, Taipei. More information will be available in the next Newsletter.



YOUNG SCIENTISTS PARTICIPATION AT CODATA 2010 CONFERENCE

The CODATA Young Scientists Working Group organized a special roundtable session within the conference where more than 50 young scientists (YS) from the African Continent came together and discussed many challenging topics facing the YS data community today. Among the issues discussed were:

- The role of Young Scientists in Addressing these Challenges;
- The Importance, Availability and Quality of Scientific Data: African Young Scientists Perspectives; and
- The Role of African Scientists in Promoting the Availability and Accessibility of Scientific Data within the Region and on a global level.

The result of their discussions led to the Cape Town Declaration (http://www.codata.org/10Conf/CT_Declaration.pdf)

This was presented at the CODATA General Assembly later that week. During the Closing Ceremony each Young Scientist received a certificate commemorating his/her participation at the Conference. CODATA congratulates Musa Nour Gabere, from the South African National Bioinformatics Institute, Cape Town who was the recipient of the best Young Scientist Paper Award.

The CODATA Young Scientists Working Group was unanimously approved for an additional two years by the CODATA 27th General Assembly immediately following the conference.

As we commence the journey to the CODATA Conference in Taipei in 2012, CODATA is committed to building on the young scientists momentum started in Kyiv and developed in South Africa.

SPECIAL THANK YOU TO THE NATIONAL RESEARCH FOUNDATION, SOUTH AFRICA

CODATA would like to thank the National Research Foundation, South Africa for all its support in making the Conference the astounding success it was. It especially wants to acknowledge the financial support provided by NRF which enabled over 50 young scientists from the Continent of Africa to participate. The participation and contributions of Young Scientists was one of the key successes of the Conference.

CODATA RECOGNIZES CANADIAN VISION IN SUPPORT OF YOUNG SCIENTISTS

(Submitted by Mary Zborowski, Executive Secretary, Canadian National Committee for CODATA - Nov. 19, 2010)

CODATA is proud to recognize the contribution of Dr. James Sangster (Canada) in support of young scientists. A long-time Member and supporter of CODATA at both (Canadian) national and international levels, he has offered the Sangster Award for Young Scientists since 2004 to help foster and advance science and technology through developing and sharing knowledge about data and the activities that work with data.

The Sangster Award is targeted at graduate students, or recent graduates, whose field of study supports the goals and activities of CODATA, and enables him or her to attend and present his or her work at International CODATA Conferences. Previous Award winners have thus presented their papers at biennial CODATA Conferences in Berlin, Beijing and Kyiv.

Canada has already been praised for taking initiatives in this area by CODATA, which in 2006 CODATA

adopted concrete recommendations encouraging other country members to follow this Canadian example. For the first time at the Kyiv (2008) CODATA Conference, a Young Scientist Roundtable was held, and Canada's Sangster Award recipient was recognized at the high-profile CODATA Prize award ceremony.

In recognition of his foresight, CODATA has awarded Dr. Sangster its praise and recognition in the form of plaque, which was presented to him at the CNC/CODATA 27th Annual Meeting, held in Ottawa (Canada) on September 24, 2010.

For more information about the Sangster Award and previous recipients, please consult <http://www.codata.org/canada/sangster/>.



Dr. James Sangster (left) receives the award from CODATA's former Vice-President, Dr. Gordon Wood.

For more information about the Canadian National Committee for CODATA's activities, consult <http://www.codata.org/canada/> or send e-mail to the CNC's Secretariat at CODATA@nrc-cnrc.gc.ca.