



## Newsletter 97

Committee on Data for Science and Technology

**21<sup>st</sup> International CODATA Conference:**

**Scientific Information for Society – from Today to the Future**

CODATA activities in 2008 culminated in the celebration, by 400 participants from all over the world, of its 21<sup>st</sup> International biennial Conference: Scientific Information for Society – from Today to the Future. The successful event took place in the historic surroundings of the National Technical University of Ukraine “Kyiv Polytechnic Institute” (NTUU-KPI). It was organized by KPI and CODATA under the Patronage of the President, Cabinet Minister and Verkhovna Rada (parliament) of Ukraine, and in partnership with the National Academy of Sciences of the Ukraine.

January 2009

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The Committee on Data for Science and Technology (CODATA) was established in 1966 by the International Council for Science (ICSU). The mission of CODATA is to strengthen international science for the benefit of society by promoting improved scientific and technical data management and use.

<http://www.codata.org>  
<http://dsj.codataweb.org>

Mr. Wataru Iwamoto, Director of the Division of Social Sciences, UNESCO represented Director General of UNESCO, Mr Matsuura, at the event. He conveyed a special message from Mr Matsuura to the participants, emphasizing that “*Since its creation in 1945, in the spirit of its Constitution, UNESCO has placed a strong emphasis on supporting equal opportunities for all people, from all walks of life, to access, create and disseminate scientific and technical information*”.

Mikhail Zgurovsky led the plenary presentations on Monday 6<sup>th</sup> October. Mikhail is Rector of the NTUU-KPI, Director of the Institute for Applied System Analysis of the National Academy of Sciences of Ukraine and former Minister of Education and Science of Ukraine. Professor Zgurovsky was followed by Bohdan D. Hawrylyshyn, who was head of the Council of Advisors to the Presidium of the Ukrainian Parliament for seven years, was a member of the American-Ukrainian advisory board, and an advisor to the first President of Ukraine. Bohdan Hawrylyshyn is now a board member of the World Academy of Art and Sciences and a member of the executive committee of the Swiss International Policy Forum.



Mikhail Zgurovsky (left) speaks at the CODATA Conference Opening Ceremony.

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## **CODATA** (continued from page 1)

He also facilitated the establishment of the International Centre for Policy Studies and until 2006 was the head of its Supervisory Board. Mr Iwamoto, in his plenary presentation, described many of the initiatives in which UNESCO is playing a part to promote the information society. These include the promotion of open access or differential pricing for access to scientific information; the development of metadata to facilitate long-term archiving; the promotion of evidence-based decision making in national policies; and the recruitment of young scientists and other workers in these tasks.

Robert Jones, CERN, and Project Director of the European Commission financed EGEE project, kicked off the plenary presentations on Tuesday 7<sup>th</sup> October. This project supports the need for high-quality technical structures to support the management and analysis of large amounts of data. The ultimate goal of EGEE is to provide a long-term sustainable Grid infrastructure throughout Europe and collaborating partners. This talk was followed by a very engaging presentation by Carole Goble. She co-leads the Information Management Group (<http://img.cs.man.ac.uk>) and is the founding chair of the Open Middleware Infrastructure Institute-UK (<http://www.omii.ac.uk>), an institute of software engineers for hardening and supporting the outcomes of the UK's e-Science programme. She is one of the leaders of the UK's e-Science activity.

The plenary presentations were followed by multiple parallel sessions, reflecting the interdisciplinary nature of the conference. A few examples of the session topics will illustrate this: Information Society, global climate change, Grid infrastructure, geophysical data systems and analysis, biodiversity, scientific capacity building, repositories for scientific data, materials: data exchange, nanotechnology, natural disasters and risk, e-science collaboration, International Polar Year, biological and genetics data. The full programme can be reviewed on the CODATA web site <http://www.codata.org>.

While the last conference in Beijing focused on the maturity of CODATA after 40 years of promoting and representing international data science, the 2008 meeting took as its keynote the importance of engaging the younger generation of scientists to lead future developments in a world community increasingly dependent upon information and scientific data. The Young Scientists' sessions were some of the best attended of the conference..

CODATA would like to acknowledge the contribution of Brian McMahon, IUCr Delegate, to this article. Brian's excellent and detailed review of the conference can be found in his personal report submitted to the IUCr from the link on the CODATA home page (<http://www.codata.org>) or on the website at <http://www.iucr.org/resources/data/meeting-reports/codata-2008>. ■

## **Dr. LIU Chuang, 2008 CODATA Prize Recipient**

Dr. LIU Chuang, from the Institute of Geography and Natural Resources in Beijing, was the 2008 recipient of the CODATA Prize. For more than two decades, she has contributed to the development of significant new scientific data products and services and worked with the Chinese scientific community and key government institutions to improve data quality and availability. She received the award for her outstanding achievement on the world stage in scientific data research along with policy and management issues while simultaneously nurturing international cooperation and highlighting the many challenges facing data scientists in developing countries.

*LIU Chuang giving her Prize Lecture.*

Thanks to her belief and commitment that China should encourage open access as the national strategy in managing scientific data, this approach was accepted by the Ministry of Science and Technology of China (MOST) for the Mid-Long Term Plan of Science and Technology of China. She was also recognized for her dedication to improved data access and capacity building for the developing world as a whole, not only as co-chair of the CODATA Task Group on Preservation and Access to Scientific and Technological Data in Developing Countries, but also as the leader in development of the Global Alliance for Enhancing Access to and Application of Scientific Data in Developing Countries of the United Nations Global Alliance for ICT and Development (GAID).



The CODATA Prize also honors her significant achievements in developing new data on land use and land cover change in China, as well as her efforts to build capacity in remote sensing and other types of spatial data management. Her efforts on behalf of the development of the World Data Centers in China and as user co-chair of the Working Group on Information Systems and Services (WGISS) of the Committee on Earth Observing Systems (CEOS) also deserve mention.

CODATA congratulates her achievements! ■

### **Special Thanks**

*CODATA International expresses its sincere thanks to Mikhail Zgurovsky, Rector of the National Technical University of Ukraine "Kiev Polytechnic Institute" (KPI) and the excellent local organization committee at KPI for its support and commitment to CODATA 2008. It is thanks to this support and commitment that CODATA 2008 was indeed the outstanding success it was. Many thanks.*

## Young Scientists' Participation at the 21<sup>st</sup> CODATA International Conference

On Wednesday October 8, 2008, approximately 35 young scientists and researchers representing different regions as well as different scientific disciplines gathered at the facilities of Kyiv Polytechnic Institute to discuss issues of importance and concern to their studies and future careers. This roundtable discussion, was organized and led by Raed M. Sharif, Ph.D. Candidate in Information Science and Technology at Syracuse University, USA, and Alexis Pasichny, Head of the Student Science Association of the National Technical University of Ukraine "Kyiv Polytechnic Institute".

The main objective of the session was to address issues such as:

1. The major obstacles facing young scientists in their fields and/or countries and some potential solutions to overcome these obstacles.
2. The role of young scientists in the science and technology policy-making processes, especially in the scientific data area, and the kind of incentives that would encourage and motivate young scientists to get involved in these processes.
3. Suggestions for activities or projects to enhance the role of young scientists in the science and technology policy-making areas and in maximizing the value of science in the information age in general.
4. The role of CODATA in promoting more and better involvement of young scientists in these areas.
5. The possibility to create a Young Scientist Prize.

Joined by a number of senior CODATA scientists including CODATA President, CODATA former President, CODATA Young Scientists Committee Chair, and other committee members, young scientists had very constructive discussions and a number of recommendations and suggestions were made and proposed at the CODATA General Assembly meeting later that week. One of the main suggestions was the creation of a young scientists Working Group, leading to CODATA's 22<sup>nd</sup> International Conference in Cape Town, South Africa, in 2010.

During the Closing Ceremony, over 30 young scientists received certificates of participation signed by CODATA President Dr. Krishan Lal. ■

*CODATA International would like to take this opportunity to thank Raed Sharif, Alex Pasichny and the Young Scientists team for their hard work and commitment in making these events a success. CODATA is committed to building on these activities in 2009.*

## Sangster and CODATA Young Scientist Awards 2008: Sabrina Fortin

Canada's Sangster Award, highlighted in CODATA Newsletter no.87 and first awarded at CODATA 2004 in Berlin, has reached its third successful conclusion. At CODATA 2008 in Kyiv, it was awarded to Mme Sabrina Fortin, Ph.D. candidate in the Faculty of Law of University of Montreal (Canada). Mme Fortin's paper entitled "Normative Models to Manage Collective Research Resources – From Commons to Contracts: the Case of Human Populational Databases" was presented at the session "Biomedical Data Sharing and Informatics," followed by her participation in the Round Table Discussion for young scientists.



*Michel Sabourin, Sabrina Fortin and James Sangster during the Sangster Award ceremony in Ottawa.*

Upon receiving both the Sangster and CODATA's Young Scientist Awards before a packed audience which included not only conference participants, but also hundreds of students from the hosting Kyiv Polytechnic University, Mme Fortin shared the following thoughts: *"This is a wonderful opportunity for me, a young scientist, to present my work before scientists of so many disciplines... In fact, my doctoral research is in the field of law and bioethics, which shows how issues relating to research data have risen yet again to new levels. I encourage all countries to participate in such national initiatives. It is good promotion for CODATA to the rest of the world and to all scientific disciplines... Bringing young scientists together is an excellent strategy to address the challenges of data management in an information society."*

After returning home to focus on completing her doctorate, Mme Fortin had further opportunity to reflect on her experience. She shares that the challenges of research data management will continue to transcend scientific disciplines as they already do now. It is also becoming abundantly clear that the solutions to many of the issues faced by the information society will most likely come from young scientists. Hence, activities to engage young scientists will continue to be critical. Initiatives such as the (Canadian) Sangster and (CODATA's) Young Scientist Awards are easy and effective ways to get young people involved in international committees and solutions.

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## Sabrina Fortin (continued from page 3)

The Sangster Award is made possible through the patronage of Dr. James Sangster (proprietor of Sangster Research Laboratories and a leader in the field of thermodynamic data) and enables a graduate student enrolled in a Canadian University, or young Canadian scientist, to attend and present their work at upcoming CODATA International Conferences. For more information, visit <http://www.codata.org/canada/sangster/>. This article contributed by Mary Zborowski. ■

## CODATA Participates at GEO-V Plenary, Bucharest, November

CODATA continued its work as scientific lead on GEO Task DA-06-01 “[Review of GEOSS Data Sharing Principles](#),” with a special side event on Data Sharing Principles that it organized on 18<sup>th</sup> November in conjunction with the [GEO-V Plenary in Bucharest in November 2008](#).

More than 30 people attended from the GEO community. The event focused on the draft Implementation Guidelines of the GEOSS Data Sharing Principles prepared by CODATA ([http://www.earthobservations.org/geoss\\_dsp.shtml](http://www.earthobservations.org/geoss_dsp.shtml)).

An overview of the process leading to these Guidelines was presented by Bob Chen, Secretary General, CODATA, including detailed reviews by GEO Members and Participating Organizations. This was followed by a discussion panel with four representatives from the GEO [Architecture and Data](#), [Science and Technology](#), [User Interface](#), and [Capacity Building](#) Committees. The panel was chaired by Joanne Irene Gabrynowicz, a member of the core author team. Topics such as public/private concerns, data quality issues, educational access, and the importance of minimum costs and time-delay in making research data available were discussed in the session.

The Guidelines were presented to the GEO delegates by Joanne during the Plenary Session on 19<sup>th</sup> November. Given the widely recognized importance of this activity and the significant progress to date by the Task, the GEO V Plenary agreed to establish a new GEO Task Force with direct involvement by both Member countries and task team representatives (including ICSU/CODATA).

Over the last year and a half, a [White Paper providing a detailed and comprehensive background to the Implementation Guidelines](#) was prepared by CODATA in liaison with the Task participants. CODATA would like to acknowledge the input of all contributors to this document but in particular the lead author, Paul F. Uhler, Director of the U.S. National Committee for CODATA (which is now part of the new Board on Research Data and Information at the U.S. National Academy of Sciences).

CODATA looks forward to working with our GEO colleagues on the next phase of these activities. ■

## CODATA US National Committee Moves to BRDI

In October 2008, the U.S. National Committee (USNC) for CODATA moved from its previous home under the National Academy of Science’s Board on International Scientific Organizations to the newly formed Board on Research Data and Information (BRDI). The mission of BRDI is to oversee a program of studies and other activities related to the management, policy, and use of digital data and information for science and the broader society. The chair and vice-chair of the new Board and of the USNC/CODATA are, respectively, Prof. Michael Lesk of Rutgers University and Dr. Roberta Balstad of Columbia University. Both BRDI and the USNC/CODATA are directed by Paul Uhler. Additional information about these activities will soon be available at <http://sites.nationalacademies.org/pga/brdi/index.htm>. ■

## CODATA Task Groups

The following Task Groups were formally approved for the period 2008-2010 by the 26<sup>th</sup> CODATA General Assembly. More information on these can be found on <http://www.codata.org>

- Fundamental Constants
- Biodiversity: Observation and Specimen Records
- Preservation of and Access to Scientific and Technical Data in Developing Countries
- Global Information Commons for Science Initiative-EU
- Exchangeable Materials Data Representation to Support Scientific Research and Education
- Data Sources for Sustainable Development in SADC Countries
- eGy Earth and Space Science Data Interoperability
- Anthropometric Data and Engineering
- Data on Natural Gas Hydrates
- International Polar Year Data Policy & Management ■

## CODATA Officers & Executive Committee

The following candidates were elected to the CODATA Officers and Executive Committee: Robert Chen as Secretary General, Michel Sabourin as Treasurer and the following to the Executive Committee:

Gaune-Escard, Marcelle  
Gojobori, Takashi  
Graves, Sara  
Guo Huadong  
Kuznetzov, Fedor  
Norris, Ray  
Nowakowski, Antoni  
Zgurovsky, Mikhail ■

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