# CODATA Newsletter 80

Committee on Data for Science and Technology



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### January 2000 Highlights

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The Committee on Data for Science and Technology (CODATA) was established in 1966 by the International Council for Science (ICSU). Working on an interdisciplinary basis, CODATA seeks to improve the quality, reliability, processing, management and accessibility of data of importance to science and technology

# Into the Next Century – Whither CODATA?

It is exciting times for those of us involved with scientific and technical data. The Information Revolution is a reality. The importance of good data work continues to grow as modelling, simulation and large-scale observation programmes expand. New software tools provide us with amazing capabilities, such as the Internet and World Wide Web,database management,and visualisation. As President of CODATA,I am enthusiastic about working with data experts from around the world to ensure CODATA remains the world's leading data organisation.

What does that mean? How can CODATA make the maximum possible impact in the next century? Whither CODATA? Let me set a few goals for CODATA over the next three years.

- Meeting the Internet challenge
- Making data science widely available
- Enlarging the CODATA community
- Improving data quality

In this column, I can only briefly outline the challenges these goals provide. Check out the CODATA web site (www.codata.org) for a longer article that gives more details.

### Internet Challenges

Every data activity is now immersed in the Internet and the World Wide Web. Specific issues that CODATA should address include intellectual property rights and other data access issues, data archiving, and interoperability and format standards. If you are interested in these and want to help work on them, let me know at john.rumble@nist.gov

### Spreading Data Science

Today, most scientists and engineers recognise the importance of data in all disciplines. While data management tools have never been more available or easier continued on page 3



### CODATA 2000 Data and Information for the Coming Knowledge Millennium

We are expecting to see you in beautiful Baveno, Italy, on the shores of Lake Maggiore, at CODATA 2000. The 17th International CODATA Conference will take place there on October 15-19, 2000. It will be an exciting event, clearly the first major data conference of the new millennium!

### What's new?

Larger! More comprehensive! And more international than ever! CODATA 2000 has been designed to include plenary lectures from some of the most important scientists and data experts in the world. The conference will also feature over 40 thematic sessions with invited speakers and contributed papers. (See the enclosed Call for Papers). The sessions, each with 5-10 speakers, bring state-of-the-art knowledge about the most important data fields today. The sessions are aggregated into four Symposia focusing on :

Data,Information and Knowledge:Principles,Methodologies, Systems and Policies (Symposia I)

Data, Information and Knowledge in Biodiversity and the Life and Medical Sciences (Symposia II)

Data, Information and Knowledge in the Earth and Physical Sciences, Engineering and Industry (Symposia III)

Data, Information and Knowledge in the Environment and for Renewable Energy (Symposia IV)

Some of the Symposia will have plenary lectures, as well as round table discussions and poster sessions.

#### What is familiar?

- The opportunity to meet with international data experts in your discipline
- To meet old and new colleagues from a variety of areas, who share your interest in data!
- To become familiar with the latest data technology!
- To meet with the leading figures who administer data programmes in individual countries, regionally and internationally!

CODATA 2000 continues the tradition of being the major international conference that addresses multi-disciplinary and cross-disciplinary data issues. Over 400 experts are expected at our beautiful Italian venue in mid-October. Baveno features a variety of attractions and good restaurants, yet is secluded enough to provide an intensive scientific programme.

This year, CODATA has a conference web site that can be accessed from the CODATA website www.codata.org. It provides full details, allows submission of papers and abstracts, and permits online registration. Conference proceedings will also be published solely on the web.

I personally extend an invitation to join us at the exciting conference. CODATA 2000 will be a memorable time.

Jacques Emile Dubois, Conference Chair



Lake Maggiore, Baveno - Italy

### WHAT PARTICIPANTS RECEIVE FROM CODATA 2000

•The major interactive forum for the exchange of new ideas and developments in all fields of data, information and knowledge

• Contact with the leaders in science and technology responsible for defining and meeting the data requirements of the 21st century science and engineering

• A powerful scientific voice in the debates on data access, as well as review of the impact on current and future legislation in this area

• Analysis of the effects of new data, information and knowledge on future S&T work organisation, emphasising data and knowledge sharing requirements and the creation of virtual laboratories

• Increased awareness of the role of S&T data in complex society problems, i.e. environmental, agricultural, medical, social and economic data integration



### continued from page 1 Into the Next Century – Whither CODATA?

to use, most people starting S&T data work are not familiar with what has already been learned, or how best to start. CODATA can help in many ways. Firstly, we are looking into developing up-to-date manuals,downloadable at no charge from our web site, that describe the basics of S&T data management.

Secondly, we are starting the CODATA Journal of Scientific and Technical Data Management (final name not decided). This CODATA Journal will be an online, peer reviewed journal, with papers describing the latest advances in data management, dissemination, visualisation, and more. Professor F. Jack Smith of Queens University, Belfast, is editor. We hope to start publishing on the Web in the next year. A call for papers will be issued soon. The CODATA Journal will be affordable for everyone in the data community.

Finally, we are planning the biggest and most interesting CODATA International Conference yet. The Conference, featuring many outstanding lectures and about 40 thematic sessions, is described in more detail elsewhere in this newsletter.

### Engaging and Enlarging the CODATA Community

The Officers and I have been working hard in several directions. Firstly, I have been trying to visit each CODATA member country and its National Committee. So far, I have met with the committees from Japan, China, Germany, Canada and the United States. More visits are planned. Our member countries are the source of our support, expertise and ideas. I continue to be impressed with the range and quality of data activities in CODATA countries. The meetings are also producing interesting ideas for CODATA activities in the coming years.

In addition, we have identified about twelve countries with strong scientific programmes that are being approached about joining CODATA. Kathleen Cass, our new Executive Director, has put together an outstanding new member package that tells the CODATA story well. She and I will be making specific solicitations in the coming year.

Finally, the Officers and I have been doing our best to try to attend each Task Group meeting and workshop. These have been exciting events, and the increased communication between the groups and the Officers helps everyone. It is through Task Groups, Commissions and Working Groups that CODATA does its work, and active, vigorous groups will have strong impact on S&T data in the future.

### Improving Data Quality

The one message I have been receiving everywhere I go is the importance of data quality. CODATA has long been a leader in data quality. Through its work on the fundamental physical constants and key values for thermodynamic quantities,CODATA data sets are used the world over. The question I ask all of you: Are there other "fundamental" data sets in other disciplines where international quality consensus will have an impact? In the biological sciences? Earth sciences? Astronomy? Other areas? Please let me know, and we can discuss how CODATA can help.

Another way CODATA has long addressed data quality is through data reporting and quality guidelines. Our Task Group on Data Quality and Database Compatability is investigating how we can use modern computational techniques to improve data quality. I believe that the fundamentals of data quality apply to data in all areas of science and technology and look forward to important progress in this area in the next few years.

In closing, I hope that you can see the directions CODATA is moving in. CODATA invites you to join us in any way you can. Just drop me a note john.rumble@nist.gov. I would love to hear your ideas.

### John Rumble, CODATA PRESIDENT

### CODATA PRIZE

The first CODATA prize will be awarded at the 17th International CODATA Conference.

#### The Prize

- honours outstanding achievement(s) in the world of scientific and technical data
- is given for work in fields of importance to S&T data,such as data management, evaluation, dissemination, access issues, international co-operation, knowledge discovery, archiving, or related subjects
- may be awarded for a one time achievement or an achievement over time
- · is awarded preferentially to one individual
- is awarded every two years at the International CODATA Conference

The CODATA Prize will rapidly become the most prestigious honour in the data field. Many scientists have made major contributions in the area of scientific and technical data and this Prize aims to honour them for their achievements.



## Call For Papers

CODATA 2000 features four symposia on data, information and knowledge in science and technology. Each symposium will feature a number of thematic sessions containing 4-8 talks. Contributed papers are solicited in the following areas:

### Data, Information and Knowledge: Principles, Methodologies, Systems and Policies

- Basic concepts
- Virtual laboratories for data management
- Uncertainty and fuzzy data
- · Ontologies for knowledge discovery
- Knowledge management
- Database technology
- Knowledge discovery
- Data access and Intellectual Property Rights (IPR)
- · Data and patent policy
- Data compression for satellites and weather data
- Intranet and data tools for Small Medium Enterprises (SME)
- Pattern recognition
- Data validation and data quality
- Data visualisation
- Web-design for Science and Technology (S&T) data resources
- Online museums
- Interoperability and metadata standards
- · Access to public data
- Regional Activities: African region, inventories and communication

### Data, Information and Knowledge in Biodiversity and the Life and Medical Sciences

- Marine biodiversity
- Ontology and taxonomy
- · Biosafety and risk assessment
- Bioinformatics
- Quality issues in bioinformatics
- Data for drug discovery
- Malaria-related data
- Proteome structure and function
- Global Biodiversity Information Facility (GBIF)
- Biochemical reactions and evolution

### Data, Information and Knowledge in the Earth and Physical Sciences, Engineering and Industry

- Volcanology and seismology
- Global climate change
- Virtual observatories
- Computational chemistry
- Combinatorial chemistry
- Modern construction industries
- Food industry
- Information industry
- Erosion and soil deposition
- Flood modelling
- Oceans
- Materials design
- · Physico-chemical data standards
- Industrial coatings
- · New analytical chemistry systems
- Data quality in industry

### Data, Information and Knowledge in the Environment and for Renewable Energy

- Natural disasters
- Water resources
- Industrial ecology
- Environmental data integration
- · Photovoltaics and fuel cells
- World energy perspectives
- Historical data sets
- Atmospheric pollution
- Environmental risk management
- Geographical Information Systems (GIS)
- Renewable energy
- · Geothermal and gas hydrates
- Urban policy

Please submit an abstract of about 200 words by e-mail, fax or mail, including e-mail addresses of all co-authors for acknowledgement and further notification.

Professor J-E Dubois, CODATA Secretariat, 51 Bd de Montmorency,75016 Paris,France - Fax:+ 33 1 42 88 14 66/ E-mail: codata@dial.oleane.com

Deadline: 28 February 2000 (Notification of acceptance 6 weeks later)

All Symposia take place in parallel sessions and include oral presentations, poster papers and round-table discussions. More detailed information on the Conference, individual symposia and registration details are continually updated on our website http://www.codata.org



### CODATA says many many thanks

#### Phyllis Glaeser



Phyllis Glaeser, Executive Director of CODATA retired on 30 June 1999. A quarter of a century ago, Phyllis joined CODATA as Administrative Assistant. Science was then in a phase of rapid development and CODATA, as a new body had been given the task of

centralising data and knowledge to be shared by all in Science and Technology.

With her instinctive sense of the right way to lead scientists of many nationalities and various disciplines to work together harmoniously, Phyllis gradually became the epicentre of a positive and fruitful scientific adventure with today a world-wide scientific community as its foundation.

In this revolution marked by informatics and communication Phyllis found deep motivations for action. She tactfully stimulated working groups, brought people together and maintained intact a deep natural admiration, and a belief in scientific progress.

AT 51 Bd de Montmorency, before many others, she mastered the impetuous beginnings of informatics, then of the Web. Nearly single-handedly she maintained the thread of continuity between the classicists and the new-agers, partisans of tried and slowly matured quality and those more impatient creators of bases on networks.

Always present on the level of new ideas, while also being an excellent translator of articles conceived in languages other than English, Phyllis was particularly involved with the various aspects of CODATA-in-print, guaranteeing the permanent link of an evermore complete Hand Book, updated with perseverance and enthusiasm, as well as contributing invaluable aid to the Newsletter.

Phyllis Glaeser stamped her personality on CODATA's formative years, integrating people, disciplines and pioneering techniques. From a slowly developing world, we have come to one that changes with ever increasing speed. CODATA grew with these changes and remains a living and young body at this time of great change. We can but recall that this growth was made possible by her continuos action, smiling, sometimes obstinate, but always moving directly in the furrow of S&T.

The entire CODATA family salutes Phyllis, acknowledges her dedication to CODATA over the years and wishes her and her family many years of happiness. Thank you Phyllis.

#### Edgar J. Westrum



At his request, Edgar J.Westrum retired as Editor in Chief of CODATA. For many of us, it will be a shock, as Edgar's name has been associated for many years with the CODATA Bulletin series and the Newsletter. For recent newcomers to CODATA, one must

remind them that Edgar was active in many other areas of CODATA. He has been an instrumental and central actor in our history. In the early years of CODATA, Edgar was Secretary General from 1974-1982 and as such was directly associated with many CODATA Biennial Conferences.

Recognised as an international authority in thermodynamics, he has created, in this field, around his scientific interests in Ann Arbor, an international network of scientific contacts for CODATA through different Task Groups dealing with classical thermochemistry and geothermodynamics.

As Chief Editor, he has maintained over the years a very original and valuable CODATA publishing sector, editing numerous CODATA Bulletins, centered on essential fields of sciences. In fact Edgar has been attracted by activities bringing together people from different countries. One cannot but think of the success of our Asian Oceanic Task Group on Data Sources Survey without recognising what we owe to Edgar's vision, convictions and vitality. A regional policy of CODATA has gradually emerged from the success of this first regional endeavour.

But there is another Edgar who contributed to our CODATA profile - Edgar, who over years attended CODATA meetings and conferences, had a special talent for enshrining these events through the camera lens. Thus, thanks to him the thirty years history of CODATA is alive and is there to remind us of our many friends and our many meetings. It is not without melancholy that we see him leave his post of Chief Editor. However it is partly compensated by our deep conviction that he will always be part of the CODATA family. Edgar, today CODATA's past and present Members and many of your friends join together to recognise your dedication and your vision and we convey to you and your beloved family our warm and sincere appreciation for your invaluable contribution to CODATA over the years. Thank you, Edgar.



# CODATA reviews Task Group and Commission Activities

The accomplishments of successful Task Groups are among the most important and most recognized highlights of CODATA activities. Following the ideas and suggestions already presented at the Chantilly planning meeting of the CODATA Executive Committee, April 1999, a review of Task Group and Commission activities and policies was one of the main items discussed at the CODATA Officers Meeting, October 11-12, 1999. It was generally agreed at the meeting that additional emphasis on stronger planning byTask Groups, with a clearer focus on "deliverables", will considerably contribute to the enhancement of CODATA's role in the information age.

Several suggestions, initiated by CODATA President John Rumble and Treasurer Mike Chinnery, were discussed at the meeting. The following ideas were central to the discussions:

The need for an active and systematic approach in order to identify priorities in fields of data activities that could be addressed by Task Groups and Commissions

CODATA can set the scientific agenda and identify these priorities in important fields of data activities. Additions and changes to the discipline list of CODATA was recognised as an important step towards identifying these areas. Opportunities for cross-discipline knowledge sharing are to be explored and followed up. Multi-disciplinary data needs are growing, but databases and related standards seem to grow on a more narrow and parochial basis. CODATA has a role to play in addressing this problem possibly, within the framework of Task Groups or Commissions.

The need for an active CODATA role when approaching and selecting individuals and groups of individuals suitable for specific Task Group and Commission involvement CODATA can solicit specific proposals from an individual or group. A Request for Proposals could be issued that identifies specific activities of interest. Proposals can be solicited from specific individuals or groups of known expertise in high priority areas. This approach must have strong input from the user community to make sure that the needs are real and that a successful project will have impact.Direct solicitation should not become the primary method for setting up Task Groups and Commissions, since an open request for proposals has the advantage of bringing in new ideas.

More emphasis to be placed on "deliverables" by Task Groups and Commissions. In order to facilitate this, CODATA should issue more detailed guidelines about defining Task Group and Commission outcomes

Two aspects:

- (i) Formal publication of results, through journal articles, books and monographs, standards documents, databases, educational texts and manuals, courses, web sites.
- (ii) Publicity for widest possible circulation.

The Task Group and Commission review process should continue to be enhanced with the goal of having better-written proposals, high quality external reviews and more stringent approval standards

CODATA should develop clear guidelines for Task Group and Commission operations, in order to facilitate the successful achievement of goals, to reach defined standards, and to assist in the realisation of deliverables of these groups

It is hoped that these suggestions will strengthen and enhance the role of CODATA Task Groups and Commissions, constructively address data related issues and problems and by so doing, serve the scientific and technical data communities as we enter the 21st Century.

Paul G. Mezey, Secretary General CODATA



### CODATA CALENDAR

March 13-14 Data for Science and Technology The Second National Conference on Scientific and Technical Data

March 29 CODATA Officers meeting

March 30-31 CODATA Executive Committee meeting

July 19-21 CODATA Africa Workshop "Scientific & Technical Data Handling and Exchange for Development"

October 15-19 17<sup>th</sup> International CODATA Conference

October 20-21 22<sup>nd</sup> CODATA General Assembly

### APPOINTMENT OF CODATA EXECUTIVE DIRECTOR



Kathleen Cass, an Irish Lawyer, was a p p o i n t e d E x e c u t i v e Director of CODATA in July 1999. Having completed her law degree at

University College Dublin and the Irish Law Society exams, Kathleen was registered on the Roll of Solicitors in 1992.

Before joining CODATA, Kathleen worked for two and a half years with the International Union of Biological Sciences (IUBS), which is also a Union of the International Council for Science (ICSU), under the Executive Directorship of Dr. Talal Younès. Here she gained hands on experience on the workings of non-governmental organisations specifically within the scientific world.

Kathleen is looking forward to the challenge of the year 2000, in particular the organisation of the CODATA Conference, and to developing CODATA's activities and membership over the coming years.

### **CODATA** Meetings

### 22<sup>nd</sup> CODATA

### GENERAL ASSEMBLY

The 22<sup>nd</sup> General Assembly of CODATA takes place 20-21 October 2000, Baveno, Italy, immediately following the CODATA 2000 Conference.

The following documents were circulated in September 1999

 Call for Proposals for New Task Groups and Commissions,

Call for Renewal of Task Groups and Commissions

• Call for Conversion of Working Groups to Task Groups and the

• Call for Nominations for positions on the Executive Committee

The deadline date for receipt of these completed documents is 30 January 2000. These documets can also be accessed on the website http://www. codata.org

### Data for Science and Society

The Second National Conference on Scientific and Technical Data -March 13-14, 2000

In conjunction with several federal science agencies, the U.S. National Committee for CODATA is organising the second national data conference to address important multidisciplinary issues in managing and using scientific and technical (S&T) data, and to improve the visibility of those issues nationally. This will take place in National Academy of Sciences Auditorium, 2101 Constitution Avenue, NW, Washington,DC

The main focus will be to promote the availability and usefulness of S&T data to all users, both in research and in the broader society, using examples of ground-breaking and innovative applications and highly creative partnerships. Three main challenges will be addressed in this context:

- 1. How can access to and use of S&T data for interdisciplinary basic and applied research be improved?
- 2. How can access to and use of S&T data by other sectors and applications areas outside research (e.g., in business, education,media/entertainment, general public understanding) be improved?
- How do we measure and evaluate productivity and performance in the management and use of S&T data within disciplines, across disciplines, and in other sectors and applications areas?
  More detailed information on this Conference and call for papers can be found on www.nationalacademies. org/usnc-codata

### CODATA and CODATA-Senegal team up for the 1<sup>st</sup> International CODATA AFR-ICA Workshop

The 1st International CODATA Africa Workshop will be held in Dakar, Senegal on 19 July - 21 July 2000 at the Meridien President's Auditorium.The title of the workshop, "Scientific & Technical Data Handling and Exchange for Development," aptly describes the overall goal of providing easier access to and exchange of scientific and technical data to scientists and engineers on the African continent.

Multi-disciplinary data issues such as collection, generation, mining, evaluationhandling, dissemination and use of data will be discussed, with the primary focus being the impact of data exchange on sustainable national and regional development on the African continent. Each geographic region will address its specific problems while

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CODATA Task Group (TG) " Comparative Mathematical Methodologies for Data Handling and Knowledge Extraction"

15-16 July 1999. The CODATA Task Group (TG) "Comparative Mathematical Methodologies for Data Handling and Knowledge Extraction" held the workshop "Mathematical and Telematics Techniques for Large Data Sets Characterization and Compression" in Paris, 15-16 July 1999. It took place in collaboration with the Institut de Physique du Globe de Paris, IPGP. The workshop itself took place at the IPGP. The principal objectives of the workshop were:

1. To discuss, evaluate and select a number of concrete comparative mathematical artificial intelligence and telematics technologies to be applied by the TG in 1999-2000 to "sample" databases;

2. To establish "sample" on-line accessible databases in Earth and Planetary Sciences, and other disciplines to be studied by the TG using the above techniques;

3. To elaborate a plan of the TG work organization as structured and goal oriented virtual laboratory based in different parts of the world;

4. To discuss and prepare concrete plans of the TG projects and results demonstration at CODATA Conference in Italy in October 2000.

Thirty seven TG members, experts and affiliated participants from different parts of the world took active part in the workshop representing wide circles of specialists in pure and applied mathematics, artificial intelligence, computer networking technologies, Earth Sciences, civil engineering, botanics, space physics, chemistry, archeology, etc. Scientists and data specialists from France, Germany, Russia, Ukraine, USA and Uzbekistan participated in the workshop.

Prof. Claude Jaupart, IPGP Director, gave his welcoming remarks to the workshop emphasising that Earth Sciences in general and geophysics in particular provide one of the most important test areas for mathematical and telematics techniques of data compression. He welcomed recent CODATA moves in the direction of geophysics.

Session 1 was devoted to virtual laboratories. Session 2 was devoted to mathematical, logical, informatics and telematics techniques for large geophysical and geodynamical data sets representation and Session 3 was devoted to mathematical and artificial intelligence techniques for data characterization and compression.

More detailed information on the meeting can be accessed on the Task Group website http://www.zeus.wdcb.ru

Professor Alexei Gvishiana, Chairman Task Group



A group of participants of workshop "Mathematical and Telematics Techniques for Large Data Sets Characterization and Compression" Paris, 15-16 July 1999.

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sharing findings and data that are useful to all. The workshop is a chance to help African scientists and end-users overcome barriers to data access that are essential in all disciplines.

For more information and to register, please look at the workshop information page on the CODATA Senegal website at http://www.primature.sn/ codata/16conf.htm.

### CODATA Euro-American Workshop

Management of Data, Information, and Knowledge Paris, France, 28-30 June 1999

Increasing amounts of data and information and the availability of fast digital network access have created a demand for querying, accessing, and retrieving information and data today. There are however some road blocks to the success of the information highway. They include

• Adequate information and knowledge management strategies and methodologies which will support access and retrieval for distributed and heterogeneous data sources

• Data mining strategies that work effectively in extracting relevant pieces of information and knowledge

• Effective visualisations which will enable users to use the information highway easily and efficiently

This Workshop, organised by the CODATA Task Group on Data/Information and Visualisation, was held at the Museum National d'Histoire Naturelle, Jardin des Plantes, in Paris, discussed the state-of-the-art of these important fields and defined future directions for research and development and for real-world implementations. The Workshop consisted of a Keynote Address, invited talks, short papers, a round table discussion, and a Capstone Address. One of the achievements of this Workshop was that it brought together experts in museum collections from the two sides of the Atlantic. It strengthened the dialogue between this important group and CODATA. This theme was further elaborated at our Round Table discussion on the same topic where issues and impediments on collaboration among museums in Europe and in the US were discussed. The Workshop was conducted in cooperation with IEEE Computer Society Task Force on Human Centered Information Systems and the Scientific Committee on Problems of the Environment (SCOPE). It was hosted by CODATA-France. For more detailed information, consult http://www.codata.org Dr Nahum Gershon, Chairman TG



### CODATA Special Group on Environmental Ecosystems Conservation

16-18 June 1999. The Second Workshop of this Special Group was held at the Svanhovd Environmental Centre near Kirkenes,Norway. The two main themes of the Workshop were the development of a unified database on environment pollution by highly toxic substances and the development of a methodology for pollution monitoring using biological indicators.

An important part of the discussion focussed on research into anthropogenic environmental pollution by especially toxic substances (heavy metals and persistent organic pollutants - POPs) and its effect on arctic ecosystems, with special reference to the Northern regions of Russia and Fennoscandia. Scientists from Germany and Norway delivered interesting reports on the results of their research. Scientists from the Institute of Northern Industrial Problems (INEP) Murmansk, described near the ecological research being carried out at that Institute. Among the Papers delivered were the following:

- how biological organisms can be used to monitor the pollution of soils by heavy metals, and a methodology was proposed for measuring pollution in this way;
- · the use of fungi for biomonitoring;
- contamination by persistent organic pollutants in Northwestern Russia;
- results on heavy metal atmospheric deposition study using moss biomonitoring technique, nuclear and related methods and GIS (geographical information system) Technology in the polluted territories of Russia (The Urals, Tula Region), Poland (Copper Basin) and Romania (Eastern Carpatians);
- scientists from VINITI demonstrated a CD-ROM containing a database on pollution by dioxins entitled



Participants at Norway meeting "Supertoxicants of the 21st Century". The structure of CODATA and its plans for the next century.

The main tasks to be carried out by the Special Group in the near future were defined to be as follows:

- The establishment of direct links with international organisations and individual scientists with the aims of developing universal conceptual data processing modules and creating conditions for the exchange of numerical data on pollution studies;
- 2. The creation of a unified methodological basis for the assessment and monitoring of pollution in various media (water, soil, air) within the framework of the biomonitoring scheme;
- The continuation of research into the impact of supertoxicants on terrestrial ecosystems.

The Workshop participants agreed that a book should be published based on the two Workshops that have been organised by the Special Group. It was agreed that the main focus of the book would be the pollution of boreal forest ecosystems by heavy metals. It was hoped that this book could be completed and published during the year 2000.

Professor M.Arsky - Chair Task Group

Joint Workshop of 2<sup>nd</sup> International Workshop of Species 2000, CODATA '99 DSAO Workshop and 14<sup>th</sup> 'Global Environment Tsukuba'

July 14th -16th 1999, Tsukuba, Japan. The Joint Workshop of the 2nd

International Workshop of Species 2000,CODATA '99 DSAO Workshop and 14<sup>th</sup> "Global Environment Tsukuba" took place July 14-16th, Tsukuba,Japan. The Theme was "Biological Diversity: Value of Information for 21st Century."

Species 2000 Japan organised the workshop to honour the Convention of Biological Diversity. The opening address was made by Yoichi Gohshi, Vice President of National Institute for Environmental Studies of Environmental Agency of Japanese Government. It was followed by the speech of Mr Hisao Shikano from Environmental Agency of Japan.

A plenary lecture took place on Global Biodiversity and Its Information. Two sessions were held in the afternoon on the first day. One on "Distributed Nature of Biodiversity Information" and the second concerned "Accessibility of Catalogue of Names".

About 20 leading researchers presented their activities relating to biodiversity and more particularly, their databases and information systems. The key organisers of biodiversity information centres in Asian-Oceanic countries also gathered to exchange their ideas and plans. Indexing the world's known species, which Species 2000 Programme initiated at the lst Workshop in 1996 in Manilla, was facilitated by this workshop and by so doing contributed to the Global Biodiversity Information facility for the benefit of users in taxonomy, ecology, environmental sciences, genomics and all other related fields.

On day 2, July 15th, a third session on "Global Species Databases" was held and a forth session took place on "Regional Biodiversity Information and Related Studies". On day 3, July 16th, continued on page 10



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oral sessions were focused on Asian Oceanic Scene. Two parallel sessions also took place, one addressed Biodiversity topics and the other addressed topics on Material Sciences and other Information Sciences. Poster sessions and computer demonstrations were also held over the period of the meeting.

Closing remarks were made by the President of the National Institute of Environmental Studies of Environmental Agency of Japanese Government with special thanks to CODATA and all participants from the different parts of the world.More details on this meeting including speakers, can be

accessed on the web at http://www. codata.org

Professor Akira Tsugita, CHAIRMAN OF CODATA, DSAO TASK GROUP

### The 7th Biennial Conference of the French Society of Applied Bibliometry 27 Sept-1 Oct 1999

The French Society of Applied Bibliometry held its 7th Biennial Conference in l'Ile Rousse, Corsica on "Enhanced Information Systems", with the following sub-themes: Bibliometry, Linguistics, Strategic Information, S&T Observatory and Economic intelligence. This important meeting of academics, industry and government experts (some 120-130 participants) paid

special attention to the merging or integration of INTRANET/WEB communication tech-niques and products with those of classical file networks.

Statistical bibliometric tools used in patents and professional files, for example, and methods of access and visual presentation were utilised for numerous economic applications. CODATA France participated in this meeting. The SFBA will participate in CODATA 2000 and will take an active part in certain sessions of the Informatics Symposium. Members of the SFBA may facilitate a session on "Virtual Industry networks with Internet"

> Prof Jacques-Emile Dubois, PAST-PRESIDENT, CODATA

### NEXT NEWSLETTER : MARCH 2000.

Articles submitted to the secretariat that are not included in the Newsletter will appear in the next issue.

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