

**Proceedings of the 20th International CODATA Conference
Scientific Data and Knowledge within the Information Society
CODATA 2006
Beijing, China
October 23-25, 2006**

The 20th International CODATA Conference marked the 40th Anniversary of CODATA, and the breadth of the presentations truly reflects how far the importance of scientific and technical (S&T) data has come in that time. CODATA, as the major international organization devoted to S&T data, provides a mechanism for advancing all aspects of data work, including their collection, management, analysis, display, dissemination, and use by sharing across disciplines and across geographic boundaries. Equally important, CODATA addresses economic, political, social, and business issues, including intellectual property rights, the pervasiveness of the internet, the digital divide, national, regional and international data policies, and the impact modern connectivity has on science and society.

CODATA international conferences are major events that bring together scientists, technologists, data and information specialists, policy makers, and data users from virtually every discipline and every region of the world. CODATA 2006 continued that tradition with over 600 attendees presenting more than 357 presentations in 83 oral sessions and over 210 poster presentations.

Many of the slides used these presentations are available online at:

<http://www.codata.org/06conf/prog-glance.html>.

These conference proceedings contain 127 written papers submitted by presenters. Individually the papers contain insights on virtually every aspect of S&T data activities. Collectively they represent an outstanding summary of today's state-of-the-art. Every person working with S&T data in any manner will find valuable information directly useful to their work as well as gain an appreciation for how modern science, and its impact on society, is dependent on S&T data activities.

All papers have been reviewed and edited, but the reader should be clear that these contributions are papers contributed as conference proceedings and not original research contributions.

The Editors wish to thank LU, Yongxiang (China) and IWATA, Shuichi (Japan) and the CODATA 2006 Scientific Program Committee for organizing such an outstanding conference.

CODATA 2006 Conference Proceedings

Editors

Diane Smith Rumble

John Rumble

Huadong Guo

Yun Xiao