

Following the Conference many of the papers presented were submitted electronically to the CODATA Secretariat for possible publication on the Web.

These have been reviewed by the Officers and Programme Committee and will be presented here as a record of the Conference.

The conference was structured through a number of Themes. The papers presented are listed below. Links will be provided to the papers accepted for inclusion in the record.

Theme I-1: Uncertainty in Knowledge Interpretation and Fuzzy Data

Chair: A. Gvishiani, Russia

Comparative Mathematical Methods of Geophysical Data Handling: Clustering and Fuzzy Clustering

A. Gvishiani, S. Agajan, Sh. Bogoutdinov, A. Beriozko (Russia), M. Diamant and A. Galdeano, (France)

New Methodology to Qualify Complex Systems Behaviour for Strategic Choices in Uncertainty and Fuzzy Data

A. Truyol (France)

Pushing Theoretical Molecular Calculations Closer to Experimental Data: Approximate but Realistic estimates of Bond Properties of Alkylamines

E.C Vauthier, E..L. Cavalieri, S.Flisszar and A. Cosse-Barbi (France)

Data and Complex Management Tools: Decision Making Processes in an Heterogeneous Framework

J.-P. Caliste (France)

Encoding Measurement Units and Uncertainty in XML Data Types

R. Dragoset, B. N. Taylor, F. Olken and J. McCarthy (USA)

Theme I-2: Management of Data, Information and Knowledge

Chairs: J. Gravallese (USA) and N. Gershon (USA)

Processes, Tools and People in Information and Knowledge Management

J. Gravallese (USA)

Complex Management Methodology Based on Qualified Data: How to Trend Specialists in Alternative University Curricula

R. Dubois, J.-P. Caliste and C. Bourret (France)

The Knowledge-based INI-GraphicsNet

J. Kohlhammer, L. Karle, C. Hornung and J. Hornung (USA)

Information Quality on the World Wide Web

A. Oberweiss and P. Perc (Germany)

Exchange of Product Data in the Global Market: How to Avoid a New Babel Tower

A. Moreno (Italy)

XML: The Natural Choice for Knowledge Management

N. Kapila and D. Ray (India)

Theme I-3: Integration of Heterogeneous Databases and Data Warehousing

Chairs: H. Bestougeff (France) and B. Thurasingham (USA)

A Translator Compiler for Interoperable Information Systems

C. Nicolle (France)

A Logic-Agent Based System for Semantic Integration

E. Sadri, F. Toni and I. Xanthakos (UK)

Building Secure Data Warehouse Schemas from Federated Information Systems

F. Saltor, M. Olivia, A. Abelló and J. Samos, (Spain)

An Implementation of Database Integration Strategies

M. Sunye, K. Scopim and R. Katsuragawa (Brazil)

Developing an Active Data Warehouse System

Shi-Ming Huang, Yu-Chung Hung, Irene Kwan and Yuan-Mao Hung (Academy located in Taipei)

Themes I-4/I-5 Information and Data: Visualization and Discovery

Chairs: J.-J. Royer (France), and N. Gershon (USA)

Visual Information Access

T. Catarci (Italy)

Recognition of Similarities in Image Databases

J. L. Kulikowski (Poland)

“The Times They Are A-Changin” - Visualization of Dynamic Information Using 3D Metaphoric Worlds

P. Gros, P. Abel, C. Russo Dos Santos, D. Loisel and J.P. Paris, (France)

Visual Information Retrieval for the Web

H. Reiterer and T.M. Mann (Germany)

Visualization for 3D Information and Knowledge in Earth Science

J.-J. Royer (France)

A Component-Based Visualization Architecture

H. Barthel, M. Bender, A. Divivier, A. Ebert and H. Hagen (Germany)

Supporting Information Dialogues by Database Driven Interactive 3D Information-Visualization

G. Jäschke, M. Leissler and M. Hemmje (Germany)

A Three-Dimensional Interface for an Office-Room

R. Sánchez and C. Neira (Chile)

Smart Documents for Web-Enabled Collaboration

M. Jern (Denmark)

Round Table Discussion

T. Catarci (Italy), J.-J. Royer (France) and N. Gershon (USA)

Theme I-6: Innovative Web Design and Applications

Chairs: O. Signore (Italy) and H.D. Flack (Switzerland)

Multimedia Presentation of Scientific Data on the WWW

H. Bögel and R. Spiske (Germany)

XML Technologies for the Representation and Management of Spatio-temporal Information in Archaeology

F. Grandi and F. Niccolucci, (Italy)

An Integrated Web Resource for Crystallography (600kb)

B. McMahon (UK)

XML in the Documentation Field: Designing Hints for “Semantic Web” Applications

G. Fresta and P. Carrara (Italy)

Towards Semantic Web: User Needs and Available Technologies

O. Signore (Italy)

Theme I-8: New Methods in Management of Information Flows and Information Industry/Digital Archiving

Chairs: K. Froitzheim (Germany) and Y. Arsky (Russia)

Implementation of New Methods in Management of Information Flows in CIS Countries by STACCIS

J. Bonnin (France) A. Beriozko, A. Gvishiani, D. Nechitailenko and T. Shulyakovskaya (Russia)

Multimedia Information Systems Development and the Virtual Organizations Synthesis

Z. Kierzkowski (Poland)

Wireless Communication for Data Access in Developing Countries

A. Stander and S. Rossouw (South Africa)

Virtual Presence-An Emerging Internet Service

K. Froitzhein, H. Wolf and H. Bönisch (Germany)

Digital Archiving in Science: How and for Whom?

H. D. Tjalsma (The Netherlands)

Knowing What We Don't Know: How to Visualize an Imperfect World

N. Gershon (USA)

ISO Open Archival Information Systems Reference Model: Concepts and Current Status

L. Reich and D. Sawyer (USA)

Preserving Scientific Data for the Ages, or How to Make our Databases Survive Us

J. Rumble, Jr (USA)

Theme I-9: The Emergence of Virtual Laboratories: Towards New Policies and Strategies for Knowledge Handling

Chair: J. Rose (UNESCO)

Virtual Laboratory Strategies for Development

S. M. Radicella, C. Fonda and E. Canessa (Italy)

Person to Experiment Communication in Virtual Laboratories

K. Froitzheim (Germany)

Virtual Laboratory and Virtual Library - Opportunities for and Challenges to Africa

G. Olalere Ajayi (Nigeria)

Presentations on case studies

International Virtual Laboratory on Fundamental and Applied Problems of Elasticity Theory

Y. Murakami, M. Kovalenko (Japan), D. Nechitailenko, A. Gvishiani, V. Strakhov (Russia), M. Diamant (France) and H. Kroehl (USA)

Creation of Virtual Laboratory on Tropical Wood

J. Noah Ngamveng (Cameroon)

The Progress of Virtual Laboratories in China

Yun-Shen Ma, Jian Miao, Jian-Gen Wu, Liang-Yao Chen, Wei-Heng Zhong, Yan-Dong Zhang, Li-Qing Shao and Dong-Shen Chen (China)

Virtual laboratories - A Brazilian-French Experience

H. Dou (France) and G. M. Coelho (Brazil)

The Virtual university and the Teaching from a Distance: The ISEFC Experience in Tunisia

M.T. Ayadi and K. Bouraoui (Tunisia)

Round Table on International Cooperation on Virtual Laboratories

Theme I-10: Virtual Observatories in Modern Astronomy and Astrophysics-International and Interdisciplinary Aspects

Chair: G. Oertel (USA)

The Age of Mega-surveys: Towards a Virtual Observatory

A. Szalay (USA)

Databases and Interconnectivity in Ground-based Astronomy

T. von Hippel and M. Mountain (USA)

Data Sharing from the Hubble Deep Field

S. V. Beckwith (USA)

Astronomical Virtual Observatories: A European Perspective

P. Benvenuti (Germany)

Towards a Virtual Observatory: A NASA Perspective

J. H. Bredekamp (USA)

Interoperability for the Astronomy Virtual Observatory

F. Genova (France)

A Perspective on Implementing the NVO in the USA

D. De Young (USA)

Panel Discussion: International And Interdisciplinary Issues, Opportunities And Challenges In Building A Virtual Observatory

Session Reporter Ethan Schreier (USA)

Theme I-11: Intranet and Data Tools for Small and Medium Enterprises (SMEs)

Chair: H. Dou (France)

Competitive Technical Intelligence in SME's, Good Practices versus Informational Tools

S. Quazotti (**Luxembourg**), C. Dubois, H. Dou and P. Escorsa (France)

Corporate Intellectual Capital: Do We Really Know to Look and How to Measure It?

M.P. Verlaeten (Belgium)

Virtual Places: Creating Knowledge in the 21st Century

J.-M. Dou (France)

Information Analysis, Genome Program and "Hidden Data"

L. Quoniam, V. Pillet, A. Ingold and B. Jacq (France)

Teaching Competitive Intelligence in Brazil for SME's

G. Massari Coelho (Brazil)

Treatment of Heterogeneous and Formal Data: Towards a Non-Metrical Analysis of Technology Watch Folder

V. Leveillé and H. Rostaing (France)

Data Validation and Data Quality: The Pertinence of a Network-Strategy.

C. Marcon and N. Moinet (France)

Theme I-12: Information Tools and Strategic Context

Chairs: C. Paoli (France) and B. Dousset (France)

Group 1 “Information Systems and Tools”

Duluth: An Information Management Tool

G. Newton (Canada)

Implementing Ontological Organisation for Managing Information

J.-E. Dubois and K. Fraoua (France)

Complementarities between Statistical and Semantical Analysis

R. Eppstein, F. Datchary and C. Paoli (France)

Creating an Information System on Tourism on the Internet

F. Baron, J. Vasquez and C. Paoli (France)

Conceptual MetaCube

T. B. Nguyen and A. Min Tjoa (Austria)

GROUP 2 “Management and Strategy”

Creating A Technological Watch Product For Network Security: An Automated Analysis of “Newsgroups”

C. Porte, E. Scarbonchi and C Longevialle (France)

Methodologies for Detecting and Creating Strategic Information in Multimedia

J. Vasquez, L. Leduc, F. Baron and D. Laurent (France)

Knowledge Management: Key to Innovation

A. Corlay (France)

Information Mining in Order to Graphically Summarize Semi-structured Documents

T. Dhaki, B. Dousset and J. Mothe (France)

IMSA: Interactive Multimedia System for Automedication

O. Curé (France)

Theme I-14: Access to Public Data and National Data Policy Issues

Chair: F. Webster, USA

Access to Public Data and Mechanisms for Data Sharing in South Africa

H. E. Phillips (South Africa)

A Survey of the Information Resources in Science and Technology in India on the World Wide Web

J.R. Arora (India)

Database Property Rights Pose a Serious Threat to the Integrity of Science

G. Thyagarajan (India)

Fundamental Research Preparation of National Sciences and Technology in China

Ye Yujiang and Shi Huizhong (China)

Construction and Development of Scientific Database of CAS

Xiao Yun, Wu Kai Chao, Li Wangping and Yan Bao Ping (China)

Access to Biological Data: A Threat to Developing World

D.M.S.H.K. Ranasinghe (Sri Lanka)

Theme II-1: Behavioral Science Databases: Cultural Revolution, Scientific Necessity

Chairs: D. Johnson (USA) and M. Sabourin (Canada)

Behavioral Science Databases: Cultural Revolution, Scientific Necessity

D. Johnson (USA) and M. Sabourin (Canada)

Panel Discussion on Behavioral Science Databases

Theme II-2: Biodiversity Information Systems

Chair: L. Blaine (USA)

The Global Biodiversity Information Facility (GBIF): What it is, what it will do and how it will be established

E. Nielson (Australia)

The Impact of the Internet on Biodiversity: Good or Evil

L. Kristalka, J. Levitt, T. Peterson, D. Vieglaiss, E. Wiley and J. Beach (USA)

Fish Biodiversity: Preliminary Insights and Suggestions for a Research Agenda

R. Froese (Philippines)

European Register of Marine Organisms (ERMS) Database

R. White (UK)

The Role of BIOSIS in Biodiversity Information

M. Kelly (USA) and J. Howcroft, (UK)

Unlocking the Bioinformatics Treasure Trove of Knowledge

A. Gray (UK)

Biodiversity Information Networks in Brazil: The Experience with BINbr and Biota/Fapesp

D. Canhos, V.P. Canhos, C.A. Joly, R.S. Pereria and S. De Souza (Brazil)

Which is more useful for the interoperability of Biological Databases, CORBA or XML?

H Sugawara and S. Miyzaki (Japan)

Design and Implementation of the Cybershell Museum on the Web, using an Animation Technology

Sung-Soo Hong, Bu-Young Ahn, Hyung-Seon Park and Sang-Rak Lee (Republic of Korea)

Theme II-3: Recent Trends in Bioinformatics

Chair: D. Spengler (USA)

Current Challenges in Bioinformatics

S. Spengler (USA)

Biological Sequence Databases, Knowledge Representation and Molecular Similarity

S. Pongor, J. Murvai and K Vlahoviek (Italy)

The Human Brain Project: Neuroinformatics

S. Koslow (USA)

The State of the Art of Proteome Study and Interaction with a Protein Sequence Database

A. Tsugita (Japan)

Functional Role of Bacteriophage Transfer RNA's

T. Kunisawa (Japan)

Application of Proteome Analysis in Cyanobacteria Taxonomy

J. Shimura, N. Tezuka, M. M. Watanabe and A. Tsugita (Japan)

Parasite Genome Databases: Sequence to Function in an Efficient Manner

A. Ivens and B. Barrell (UK)

Untangling Proteomics, Gene Expression and Genetic Networks

D. Galas (USA)

Theme II-4 Quality Issues in Bioinformatics

Chairs: T.N. Bhat and G. Gilliland (USA)

Quality Issues in Biomacromolecular Structure Databases

T.N. Bhat and G. Gilliland (USA)

Validation of Protein Name Assignments in Databases

W.C. Barker and F. Pfeiffer (USA)

Organisation and Standardisation of Information in SWISS-PROT and TrEMBL

M. Magrane (UK)

DANTE: A Workbench for Sequence Analysis

J. Tamames (Italy) and A. Tramontano (Spain)

Problems with the Denominator in Epidemiological Studies

D. J. van Schalkwyk (South Africa)

Quality Issues in Data Banks for Molecular Biology

A. M. Lesk (UK)

Round Table Discussion II-A: Standards in Biological information Systems

A. Lesk, M.I. Krichevksy, W. Barker

Theme II-5: Biological Collections and Information Systems: Mobilizing Natural History Knowledge

Chairs: J. Beach (USA) and W. Berendsohn (Germany)

Biological Collections as a Tool for the Construction of Predictive Distributional Maps-An Example of Italian Lichens

P.L. Nimis and M. Stefano (Italy)

Maximise Common Denominators: Towards and International Data Access Profile for Biological Collection Information

A. Guntsch and W. G Berendsohn (Germany)

Using Natural History Museums to Create National Biological Surveys - A Mexican Case Study

A.G. Navarro (Mexico)

The Species Analyst-A Distributed Network of Biodiversity Information

D. Vieglas (USA)

Putting Natural History Museum Collections Data to Work in Solving Problems: Invasive Species, Global Climate Change and Agricultural Planning

A. Townsend Peterson (USA)

Building the Encyclopedia of Life From Biological Collections Databases

J. Beach (USA)

Theme II-6: Biosafety and Risk Assessment: Ethical Systems and Use of Data

Chair M.I. Krichevsky (USA)

Introductory Remarks on Biosafety and Risk Assessment

M. . Krichevsky (USA)

Data Needs to Support Risk Assessment Decisions

M. Segal (USA)

The "Precautionary Principle" - When Data Are Inconclusive

G. Ferraiolo (Italy)

Use and Misuse of Data in Biosafety Debates: Antibiotic Resistance, Butterflies, Mustard

M.I. Krichevsky (USA)

Round Table: Conflicting Ethical systems for evaluating biosafety Data

G. Ferraiolo, Italy, M.I. Krichevsky and M.A. Levin (USA)

Theme III-1: Geophysical Data Management Studies in the 21st Century

Chair: J.-O. Dubois (France)

Information Management and Data Mining in Solar-Terrestrial Physics: SPIDR-II Project

E. Kihn, H. Kroehl (USA), M. Zhizhin, A. Burtsev, A. Gvishiani, D. Nechitalenko and A. Soloviev (Russia)

Metrological and Interpretational Analytical Approximation of Gravitation and Magnetic Fields Data

V.N. Strakhov (Russia)

Towards Interpretation of Gravity of Magnetic Data Using Methods of Artificial Intelligence

A. Gvishiani, V. Mikhailov, S. Agoyan, Sh. Bogoutdinov (Russia), M. Diament and A. Galdeano (France)

Establishment and Application of the Science Data Management Information System for Qinghai-Tibet Plat

Sun Jiulin (China)

Global Climate Change Data Aspects

M. Lautenschlager (Germany)

China's Natural Resources Database (CNRD)

Li Zehui (China)

A Global Survey of National Spatial Data Infrastructure Activities

H. Onsrud (USA)

Problems of Data and Databases in Oceanic Geosciences

J.O. Dubois (France)

Theme III-2: Environmental Risk Management and Environmental Data Handling

Web-based Permanent Upgrading of Historical Earthquakes Data and Catalogues: A Resource For Seismic Hazard Assessment

G.R. Rinaldi (Italy)

Data and Information Management of the German Research Network for Natural Disasters (DFNK)

J. Wachter, F. Lochter and B. Merz (Germany)

Data Management and Integration In Earthquake Hazard And Risk Evaluation

A.S. Kiremidjian (USA)

Historical Geo-Data: The Baveno Data Set

G. Gabert (Germany)

THEME III-4: Physico-Chemical Data Standards and Databases

Chair: H. Kehiaian (France)

Landolt-Boernstein, Transition into the Electronic Age

G. Griepke, R. Poerschke and W. Martienssen (Germany)

Results of a Complex Investigation of Thermophysical Properties of Industrial Fluids

V. V. Sytchev and A. D. Kozlov (Russia)

Thermophysical Property Data Evaluation and Use in the 21st Century: TRC Outlook.

M. Frenkel (USA)

Thermodynamic Property Electronic Data Files Produced in Russia

V. S. Yungman and V. S. Iorish (Russia)

Computer assisted exploitation of multi-component phase diagrams. Application to seawater and natural brines

R. Cohen-Adad, S. Mancour-Billah, and B. Cohen-Adad (France)

Portability of Materials Data Evaluation Models Using XML/Java

Y. Monma and H. Fujiwara (Japan)

Creating an Electronic Database for the *Journal of Physical and Chemical Reference Data*

D. Blakeslee, A. Y. Lee, and S. L. Young (USA)

Web-based Access to Physico-Chemical Property Data Using Standard Electronic Data Files (*The ELDATA Journal*)

H. Kehiaian (France)

A Virtual Data Engine for Gas Phase Chemistry

W. Tsang and V. Mokrushin (USA)

THEME III-5: Modern Materials Design: Databases, Combinatorial Design, Virtual Materials and Knowledge Discovery

Chairs: S. Iwata (Japan) and K. Rajan (USA)

Introduction

K. Rajan (USA)

Combinatorial Approaches to Heterogeneous Catalysis: Strategies and Perspectives for Academic Research:

C. Mirodatos (France)

Construction of Metallographic Atlas Combined with Long-Term Creep Rupture Data for Type 304 Stainless Steel.

M. Murata, H. Tanaka, F. Abe and H. Irie (Japan)

Seeing is Believing: Simulation with Animation

D. Vvedensky (UK)

Material Property Database System Design and Implementation

Xinyue Huang and Lei Wang (China)

Valorization of Databases Generated from Catalysis and Materials Sciences

O. Lavestre (France)

The NIST X-ray Photoelectron Spectroscopy Database: A Web-Based Information System

A.Y. Lee, D.M. Blakeslee, C.J. Powell and J. Rumble, Jr. (USA)

Data Mining: Knowledge Discovery Tools for Materials Science

M. Zaki and K. Rajan (USA)

An Investigation about Data Exchanging and Sharing of Industrial Material Data

Xinyue Huang (China)

Theme III-6: Tools For Data Validation And Quality Control

Chairs: P. Mezey (Canada) and D. Lide (USA)

Algorithmically-aided critical evaluation in chemical structure indexing

A. Lawson (Germany)

Internationally Approved Data on Thermodynamics: the IUPAC Experience

W. Wakeham and K. Marjorie Reuck (UK)

Data for the Values of the CODATA Fundamental Constants

P. J. Mohr and B. N. Taylor (USA)

Treatment of Discrepant Data using the Method of Least Distortion

D. Muir (Austria)

Introductopn: Historical Perspective on Data Evaluation in the Physical Sciences

D.R. Lide (USA)

Graph-Theoretical Modeling of Experimental Data - A Data Quality Problem

L. Pogliani (Italy)

Data Acquisition, Validation and Quality Control for the Cambridge Structural Database

O. Johnson (UK)

Combined Use of Structural Databases and Molecular Orbital Calculations in the Study of Molecular Interactions

G. Naray-Szabo (Hungary)

The Role of Dimensions and Reduced Dimensions of Databases in QualityEvaluations

P.G. Mezey (Canada.)

Data Quality Problems in Computer Modelling

J. Brickmann (Germany)

Quality Issues in Pharmaceutical Data Mining: Gold or Pebbles

G. M. Maggiora (USA)

Data Quality Problems in Discrete and Continuum Representations

R. Carbo-Dorca (Spain)

Bootstrap Estimates to assess the “quality” in Data Validation and Fusion

P. Ciarlini, G. Regoliosi and F. Pavese (Italy)

THEME III-7: Interoperability and Metadata Standards

Chairs: J. Rumble, Jr. (USA) and P. Murray-Rust (UK)

Interoperability: An Overview and Why it is Important

J. Rumble, Jr. (USA)

Mark Up Languages

P. Murray Rust (UK)

Knowledge for Information Infrastructure

H. Kremers (Germany)

A Data Search Tool for Interoperable Searches Among Independent Space Physics Data Centres

J. Thieman, E. V. Bell (USA), M. A. Hapgood (UK), C. C. Harvey, T. Levoir (France) and J.D. Winningham (USA)

A Distributed Component Framework for Science Data Product Interoperability

D. Crichton and S. Hughes (USA)

The Global Change Master Directory-Online Access to distributed Earth Science Data Sets

S. M. Leicester and R. Bilodeau (USA)

Materials MatML

C. Sturrock, E. Begley, Jr. and J. Rumble, Jr. (USA)

Possibility and Problems of Generic Data-sharing System of Materials Databases by use of XML

K. Halada and Hiroshi Yoshizu (Japan)

Russian Nuclear Science-Technology Data Exchange Under Today Legacy Field

A.S. Aldoshin, A.P. Barzilov, T.V. Golashavili and V.M. Kouprijanov (Russia)

NASA Global Change Master Directory: Harnessing the Power of Java Remote Method Invocation in a Heterogeneous Federated Environment

K. Nagendra, O. Bukhres, S. Sikkupparbathyam, M. Areal, Z. Ben Miled, L. Olsen, C. Gokey, D. Kendig, T. Northcutt, R. Kordova and G. Major (USA)

THEME III-8: Databases and the New Analytical Chemistry

Chairs: G. Kramer (USA), R. Schaefer (Germany)

New Approaches for Handling Data, Information, and Knowledge Derived from Analytical and Clinical Chemistry

G. Kramer (USA) and R. Schäfer (Germany)

Laboratory Automation System Integration and Result Data Interchange Standards for Analytical Chemistry—Where We have Been and Where We're Going

G. Kramer (USA)

A CORBA-Based OMG Standard for Laboratory Device Control: A Concept to Solve Today's Problems in Laboratory Automation and System Integration

T. Richter (Germany)

Error Detection and Recovery—A Generic Expert System Approach

R. Schäfer and T. Tauber (Germany)

Data Management and Laboratory Information Management Systems (LIMS)

R. D. Mc Dowall (UK)

The Point-of-Care Connectivity Industry Consortium (CIC)—A Model for an Open Industry-Driven Standardization Efforts

D. Boecker (USA)

The Point-of-Care Connectivity Industry Consortium (CIC)—Experiences from a Successful Industry-driven Standardization Effort

J. Perry (USA)

A Stepwise Approach to Handle Patient-Centric Information and Data

P. Bonini and A. Sanna (Italy)

Next-Generation, XML-Based Standards for Analytical Laboratory Data Standards for Exchange and Archiving

R. Lysakowski (USA)

Charge Transfer in Binary System 1,3,5,7-tetramethyl 1-2,4,6,8,9,10-hexathia-adamanatetane and Anthracene

S. Besbes-Hentati, C. Marhegh, A. Mahjoub, H. Said, R. Castanet and M. Bouvet (Tunisia)

Themes III-9 /Theme III-10/ Theme IV-8: Industrial Coatings/Modern Construction Industries/Data and Knowledge for the City of Tomorrow

Chairs: A. Revillon (France) and L. Kaetzel (USA)

Critical Elements and Knowledge Sharing Protocols for Organic Coatings

L. Kaetzel and J. W. Martin (USA)

Integrated Models for Product and Process Information: A Keystone of Concurrent Engineering for Site Management

A.G. Kimmance (UK), C.J. Anumba, A.N. Baldwin, D. Bouchlaghem and A.F. Cutting–Decelle (France)

Overview of Progress and Problems in Organic Coatings

A. Revillon (France)

Organic Conductive Polymers as Anticorrosion Coatings: State of the Art and Prospects

P.C. Lacaze (France)

Information Needs Towards Service Life Asset Management

B. Kyle, D. Vanier and B. Kosovax (USA)

Base Paints' Ecoprofiles

P.H. Wetterwald (France)

THEME III-11: Flavour and Food Industry issues: Analytical Tools and Public Expectations

Chairs: C. Bicchi (Italy) and P. Schreiber (Germany)

Headspace Sorptive Extraction (HSSE): A New High Concentration Capability Static Headspace Technique

B. Bicchi, C. Cordero, C. Iori and P. Nubiolo (Italy)

Selected Demonstration of the CD-ROM on the Medicinal and Aromatic Plants of the South West Indian Ocean

A. Gurib-Kakim and P. Van Brandt (Belgium)

Analytical Flavors Quality Evaluation

G. George (France)

Need for Databases and Method Validation for Food Analysis

E. Anklam (Italy)

Honey Authentication by Modeling Complex Analytical Data

R. Fellous and J. F. Antinelli (France)

New Trends in Database Mining : Application to Olfaction

K. Andouze, F. Ros, M. Pintore and J.R. Chretien (France)

Theme IV-2: Environmental Risk Management and Sustainable Development

Chair: N. Mitchison (JRC-ISPRA)

State of the Arts in Environmental Risk Management

J.-P. Norvid, A.C. Lucia and N. Mitchison (JRC-ISPRA)

The Problems of the Generation of the Database on Supertoxicants

Y. Arskiy, N.Kochanova, O. Nesterov and I. Potapov (Russia)

Contamination of the Environment with Radionuclides Released from Specific Nuclear Industry Plants of Russian Federation Ministry for Atomic Energy in 1998 and Ways to Mitigate This

T.V. Golashavili, A.P. Demidov, A.P.Komarov, A.A. Lbov and I.S. Serebryakov (Russia)

Environmental Radioactive Contamination and Cancer Incidence after the Chernobyl Accident

M. M. Fuzik (Ukraine)

Atmospheric Deposition of Trace Metals Studied by Moss and Lichens Analysis: Some Examples from Russia

M.V. Frontasyeva, V.V. Nikonov and E. Steinnes (Russia)

Theme IV-3: Environmental Data Integration

Chair: D. Stanners (Denmark)

An Application of The Turning-Bands-Simulation Method For The Modelling of Environmental Data

B.Namyslowska-Wilczynska and A. Wilczynski (Poland)

The Role of Uncertainty And Sensitivity Analysis in Data Integration

A. Saltelli (Italy)

Bridging The Gap: Information For Action

D. Stanners (Denmark)

Linking Environmental And Socio-Economic Information

D. Heath (EUROSTAT)

Communicating on the Environment

H. Kremers (Germany)

Theme IV-4: Water Issues, Resources and Redistribution

Chair: J. M. Martin (JRC-ISPRA)

The World Water Crisis During The 21st Century

J. M. Martin (JRC-ISPRA)

Water Resources Protection in Gas Industry, Russia

G. Akopova and N. Popadko (Russia)

Emerging Issues in Water Pollution

P. Part (Italy)

The European Thematic Network in the Relation between Education and Research in the Field of Water

R. Damian (Italy)

Results from Six Years of Real-Time Data Surveying the Seine River

E. Jaskulke (France)

Sustainable Water Resources Assessment : The Multi-Disciplinary Moselle Basin Project

J.M. Cases, J.P. Schmitt, L. Palfner and J.-J. Royer (France)

The Lisflood Model: A Dynamic Physically Based River Basin Model Integrated within a GIS Environment

M. Odijk, A.P.J. De Roo and G. Schmuck (Italy)

Isotopic and hydrogeochemical investigations on the fluid regime of the Dallol Bosso, Niger

J. C. Hunziker, S.A. Galadima and S. Pastorelli (Switzerland)

Theme IV-6: Geographical Information Systems

Chair: A. Jones (JRC-ISPRA)

Gateway To The Earth-Transforming Our Understanding of The Environment

B. J. Ryan (USA)

Methodology For Integrating Remote Sensing, Environment And Social Sciences

Liu Chuang (China)

The Application of Remote Sensing, Geographic Visualisation And Data Mining Techniques For The Design of A Multi-Scale Land Cover Monitoring System

M. Wachowicz and S. Mucher (The Netherlands)

Using GIS For Forest Fires Damage Assessment in Greece

P. Barbosa, J. San Miguel-Ayanz and G. Schmuck (Italy)

Remote Data Access Between 3d Geoscientific Visualization Tools And A Geo-Database Kernel System

M. Breunig and S. Shumilov (Germany)

Using The OGC Web Mapping Testbed to Integrate GIS And for Derived Data for Better Global Fire Monitoring

C. Best, S. Pinnock and M. Kleih (Italy)

Novel Approaches To The Dissemination of Statistical Data Using GIS And The Www A. Jones and M. Van

Liedekerke (JRC-ISPRA)

Theme IV-7: Global Cross Border Pollution: Industrial and Natural Nuisances

Chair: A. Clappier (Switzerland)

The Role of Data And Information in Preventing Major Chemical Accidents

G. Thyagarajan (India)

Atmospheric Pollution in The Alps

N. Marchand, P. Masclat and J. L. Besombes (France)

Aerosol and Photo-Oxidant Simulation Between Milano And South Switzerland.

A. Clappier, A. Martilli, F. Kirchner, G. Favaro and A. Neftel (Switzerland)

Direct And Inverse Problems of Analysis of The Atmosphere Ecological State of Industrial Regions

M. Zgurovsky (Ukraine)

Fugitive Dust (Pm₁₀) Emission Inventory in Northern China

Jie Xuan, Ke Du and Guoliang Liu (China)

Theme IV-9 Urban Air Quality and Human Exposure

Chair: D. Kotzias (JRC-ISPRA)

Think Local, Act Global: The Need for Integrated Modelling for Urban Pollution

A. N. Skouloudis (Italy)

EXPOLIS Database for Multi Centre Air Pollution Exposure Data Collection and Management

O. Hanninen, (Finland), E. Lebet (The Netherlands) and M. Jantunen (Italy)

A Way Forward to Harmonized Air Quality Data

A Borowiak, F. Lagler, M. Gerboles and E deSaeger (Italy)

Multidisciplinary Data and Model Fusion: A Key to Integrated Air Quality Assessment

D.A. Sarigiannis (Italy)

Catalogue on the Assessment of Natural Ecosystems State under the Conditions of Anthropogenic Pollution by Super Toxicants

N. Chernavskaya, N. Katrich, T. Pleskacheva, N. Kochanova and O. Nesterov (Russia)

Theme IV-11: Gas Hydrates: Their Role in the Past and the Future

Chair: F.A. Kuznetsov (Russia)

Natural Gas Hydrates-Present And Future

Y. F. Makogon (USA)

Chlorine Stable Isotopes Provide Estimates on Hydrate Abundance in a Submarine Gas-Hydrate Field and Possible Hints on the Chlorine Source

R. Hesse, P.K. Egeberg (Norway) and S. Frape (Canada)

Seismic Imprints of the Gas Hydrates in the Black Sea and Mediterranean Sea

G. Cifci, M. Ergum and D. Dondurer (Turkey)

Estimation of Distribution of Gas Hydrate and Free Gas from Log and Seismic Data

U. Tinivella, F. Accaino and A. Camerlenghi (Italy)

A Gas Hydrate Database Developed for the Internet.

J. Klerkx et al. (Russia)

Data Activity Related To Natural Gas Hydrates in Russia

F. Kuznetsov (Russia)

Geological, Geochemical, And Geophysical Data Files, Concerning Submarine Gas Hydrates

V. Soloviev and G. Gherkashev (Russia)

Theme IV-12: Geothermy - An Alternative Source of Energy

Chair: J.-J. Royer (France)

Application of Gas Tracer Tests To Evaluate Transport Characteristics in Fractured Porous Media

C. Thuringer, R. Bäuml and H. Hötzl (Germany)

The Closed Geothermal Heat Exchanger System-An Independent Concept For Geothermal Energy Production From Deep Reservoir Rocks

B. Legarth and H. Wolf (Germany)

An Equivalent Porous Media Approach For Geothermal Reservoirs: Application To Heat And Mass Transfers Modeling of The Soultz Geothermal Doublet

P. Audigane and J.-J. Royer (France)

Characterising The Soultz Geothermal Reservoir Using Microseismicity

J.-J. Royer, P. Audigane and S. Shapiro (France)

Theme IV-13: Renewable Energy and Environmental Issues: Needs, Opportunities and Perspectives of the New Millennium

Chair: H. Ossenbrink (JRC-ISPRA)

The European Research Area - Pilot Action On A Renewable Energy S/T Reference System

H. Ossenbrink (Italy)

The European Commission Thermie Demonstration Programme: Monitoring Data Bases

E. Dunlop and J. Sachau (Italy)

The World Wide Information System For Renewable Energies (Wire)

C. Findlay (Germany)

Unifying European Renewable Energy Data Bases - The Industrial Perspective

M. Cameron (Germany)

Energy Or Energies ? Solution Or Solutions? : Dream and Reality

M. Gaune-Escard (France)

Workshop on Teleworking and Mathematical Methods in Geoscience, Natural Hazard and Environmental Data Handling (Section 1) Teleworking for Distributed Collaborative Projects

Chair: A. Gvishiani (Russia)

Analytical Representations Of Potential Field Anomalies

V. Strakhov (Russia)

Telematics System On Consequences Of Natural Disasters In Europe

J. Bonnin (France)

Earthquake Strong Motion Database on the WWW

A. Gvishiani, M. Zhizhin, A. Burtsev (Russia) and J. Bonnin (France)

Teleworking For Data Interpretation

H. Kremers (Germany)

Computer Telecommunication For Seismic Risk Studies

A. Kiremidjian (USA)

International Virtual Laboratory For Geoscience Studies

A. Gvishiani, M. Kovalenko and D. Nechitailenko (Russia)

New Mathematical Approach to Environmental Data Studies

M. Zgurovsky (Ukraine)

Dynamic Systems for Geoscience and Environmental Studies"

J.-O. Dubois (France)

Application of Non Linear Dynamics to Environmental Studies

W. Karmeshu (India)

GIS-based Automated Recognition of Linear Features in Geophysical Data Sets

A. Beriozko (Russia), M. Diament, C. Deplus and H. Hebert (France)

Business meeting of CODATA Task Group "Comparative Mathematical Methodologies for Data Handling and Knowledge Interpretation

Chair: A. Gvishiani (Russia)

Report: Workshop on the European Directive on the Legal Protection of Databases

Chair: F. Webster (USA)

Round Table on Data Access and Intellectual Property Rights Policy in Natural History Museums

Chairs: J. Gravalles and N. Gershon (USA)

Report: CODATA Africa and African Regional Data Issues

Chair: A. Gaye (Senegal)

Report on Species 2000

Chair: F. Bisby (UK)