VLDB 2001

**27th International Conference on
Very Large Data Bases
Roma, Italy
September 11–14, 2001**

Call for Attendance

VLDB 2001 Web sites

<u>Home page</u>: http://www.dia.uniroma3.it/vldb2001/
<u>US mirror</u>: http://www.cs.arizona.edu/vldb2001/

CONFERENCE SECRETARIAT FOR VLDB 2001

If you require additional information about the conference registration,
hotels, and tours please fax, write or email:

CONSULTA UMBRIA SRL
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E-Mail: vldb2001@consultaumbria.com

Invitation to attend VLDB 2001

The International Conference on Very Large Databases (VLDB) is the premier international forum for the dissemination of new research and practices in data technology, management, and applications. VLDB 2001 will be held in Roma, one of the most important historical cities in the world, with an incredible number of interesting monuments. This is the second time in 27 years that Italy will host the conference, after the very successful VLDB 1983 in Florence.

VLDB 2001 includes 3 keynote sessions, 59 research papers arranged in 20 sessions, 18 industrial and application papers arranged in 6 sessions, 6 tutorials, 3 panels, and 16 demos. Collectively, these contributions offer a broad view of the evolution of data technology in response to current challenges and needs. An exhibition complements the technical program, with the participation of industrial sponsors (providing information and giving demos on state-of-the-art products) and publishing companies (presenting their most recent books and journals).

The keynote speakers of VLDB 2001 give the database community an inspiring testimony of current trends in information technology. Dr. Egbert-Jan Sol (Ericsson) presents the new challenges for data management applications which will be opened by the "ambient Internet", when we will have billions of embedded intelligent devices around us. Dr. Philip Wadler (Avaya Labs) focuses on data management aspects in the new W3C standards, and more specifically on XML and Xquery, the standard query language for XML. Dr. Pierre-Paul Sondag (European Commission) introduces the new EC research program on Semantic Web.

VLDB 2001 also has a number of satellite events, which include three workshops to be held in Roma the day before or the day after the conference, and several other conferences and workshops scheduled in diverse regions of Italy in the preceding or subsequent weeks.

The VLDB social program, which includes the Welcome Reception on a scenic terrace overlooking Roma, a classical concert at the Caracalla Baths, and a medieval banquet in the Odescalchi castle of Bracciano, has been carefully planned to give attendees the opportunity to relax and socialize with their co-delegates while enjoying some of the beautiful locations in Roma and its surrounds.

We gratefully acknowledge the support given to the conference by various institutions and companies, as listed in the back cover of this leaflet. The generosity of these organizations enables the conference to provide technical content and operational services that otherwise might not be possible.

So, on behalf of the whole team, which is working hard to make the conference a success, it is our pleasure to invite you to attend VLDB 2001. This Call for Attendance includes all details on the scientific program as well as on registration, travel, accommodation and social events. Updates will be posted on the website http://www.dia.uniroma3.it/vldb2001/.

September is definitely a great time to visit Roma. It is also rather crowded, so we urge you to register for the conference and reserve your hotel room as soon as possible.

Paolo Atzeni
General Chairperson, VLDB 2001

Tiziana Catarci
Organizing Committee Chairperson, VLDB 2001

Stefano Ceri
Coordinating Program Chairperson, VLDB 2001

KEYNOTE TALKS

Keynote Address – Egbert-Jan Sol (Ericsson Ericsson/Corporate Technology)
Ambience Intelligence with the Ubiquitous Network, the Embedded Computer Devices and the Hidden Databases
Tuesday 11th September, 09:00-10:30, Aula Magna
Abstract: Within 10 years people will have hundreds of interconnected computing devices around them. Many connections will be wireless and many devices will store data in them. With a billion or more mobile users having a hundred devices we face a ubiquitous (IP) network with a very large (100B) small and hidden or embedded databases as well as 'always-on' connection to all kind of databases in the network. How to solve e.g. the challenges of security, replication and resilience. Some of the answers are visible already in today's mobile telephone and Internet networks. But many answers and even possible problems are not known yet. One of them is how fast will this technology take off, that is what might be the technology evolution we are facing.
About the speaker: Dr. Egbert-Jan Sol (1956, Dutch) is vice president Technology of Ericsson-Netherlands and currently on assignment in Sweden as director at LM Ericsson, Corporate Technology where he is involved in the "All-IP" evolution of fixed and mobile communication networks. He has an industrial career starting as system architect, project manager, software development manager, marketing manager and manager of a 500 person R&D center. Egbert-Jan Sol has been part-time professor at Technology Management at the Eindhoven University of Technology, and is a regular speaker on new technologies, in particular on the longer term evolution of the Internet.

Keynote Address – Philip Wadler (Avaya Laboratories)
Et tu, XML? The Downfall of the Relational Empire
Wednesday 12th September, 11:30-12:30, Aula Magna
Abstract: Three decades past, the relational empire conquered the hierarchical hegemony. Today, an upstart challenges the relational empire's dominance, threatening the return of hierarchy. XML is Lisp's bastard nephew, with uglier syntax and no semantics. Yet XML is poised to enable the creation of a Web of data that dwarfs anything since the Library at Alexandria. This talk examines the design of XQuery, the W3C standard query language for XML, and looks at related phenomena such as XML Schema and the Semantic Web.
About the speaker: Philip Wadler is a researcher at Avaya Labs. He likes to introduce theory into practice, and practice into theory. An example of the former is GJ, the basis for Sun's new version of Java with generics, which derives from quantifiers in second-order logic. An example of the latter is Featherweight Java, a simplification of Java comparable to lambda calculus. Phil currently edits two W3C documents, XML Query Formalism and XML Schema Formalism, two efforts to shine the light of mathematics onto the murk of industrial standards. In previous incarnations, Phil worked or studied at Bell Labs, Glasgow, Oxford, CMU, Xerox Parc, and Stanford, and served stints as guest professor at the universities of Sydney and Copenhagen. He edits the Journal of Functional Programming for Cambridge University Press, and has delivered invited talks in Amsterdam, Austin, Boulder, Brest, Gdansk, London, Montreal, New Delhi, New Haven, Portland, Santa Fe, Sydney, Victoria, and Washington.

Keynote Address – Pierre-Paul Sondag (European Commission)
The Semantic Web Paving the Way to the Knowledge Society
Wednesday 12th September, 12:30-13:00, Aula Magna
Abstract: The European Commission opens in its 7th IST call for proposals, an action line for Semantic Web Technologies. It builds on ideas that have been looming for many years but have received their greatest push when the World Wide Web Consortium set up an interest group on that theme. The Semantic Web aims to make content machine understandable in order to automate a wide range of new tasks within the context of heterogeneous and distributed systems. The action line centres on four aspects: formalisation of the semantics, derivation of attributes, intelligent filtering and information visualisation. The Web is currently a mighty collection of flashy data but difficult to exploit. Adding semantics to content and ensuring their interoperability will turn it into an efficient knowledge source.
About the speaker: With a background in business computer science, Pierre-Paul Sondag held first several positions in that field in private manufacturing and service industries. He joined the European Commission in Luxembourg in 1989 and became Project Officer in 1993, organising calls for proposals and monitoring projects in the field of Language Engineering. He joined in 1999 a newly created Unit handling the key area of "Information access filtering analysis and handling" of the Information Society Technologies (IST) thematic programme. Within the European Commission, he is working with projects that aim to overcome the information overflow and ease non-experts to access, select and manipulate multimedia information from an ever-increasing range of heterogeneous sources. He has a particular interest for the evolution of the Web into a global knowledge space.

Ten Years Award Talk – Umeshwar Dayal (Hewlett-Packard Laboratories), Meichun Hsu (Commerce One Laboratories), and Rivka Ladin (Compaq Tandem Laboratories)

Business Process Coordination: State of the Art, Trends, and Open Issues

Thursday 13th September, 15:15-16:15, Aula Magna

Over the past decade, there has been a lot of work in developing middleware for integrating and automating enterprise business processes. Today, with the growth in e-commerce and the blurring of enterprise boundaries, there is renewed interest in business process coordination, especially for inter-organizational processes. This paper provides a historical perspective on technologies for intra- and inter-enterprise business processes, reviews the state of the art, and exposes some open research issues. We include a discussion of process-based coordination and event/rule-based coordination, and corresponding products and standards activities. We provide an overview of the rather extensive work that has been done on advanced transaction models for business processes, and of the fledgling area of business process intelligence.

RESEARCH PAPERS

Session R1: QUERY OPTIMIZATION
Tuesday 11th September, 11:00-12:30, Aula Michelangelo

LEO - DB2's Learning Optimizer
by Michael Stillger, Guy Lohman, Volker Markl (IBM Almaden Research Center), and Mokhtar Kandil (IBM Canada)

User-Optimizer Communication using Abstract Plans in Sybase ASE
by Mihnea Andrei (Sybase France) and Patrick Valduriez (University of Paris 6)

XXL - A Library Approach to Supporting Effcient Implementations of Advanced Database Queries
by Jochen van den Bercken, Bjorn Blohsfeld, Jens-Peter Dittrich, Jurgen Kramer, Tobias Schafer, Martin Schneider, Bernhard Seeger (University of Marburg)

Session R2: REASONING ON DATA SEMANTICS
Tuesday 11th September, 11:00-12:30, Auditorium

Generic Schema Matching with Cupid
by Jayant Madhavan (University of Washington), Philip A. Bernstein (Microsoft Research), and Erhard Rahm (University of Leipzig)

A Formal Perspective on the View Selection Problem
by Rada Chirkova (Stanford University), Alon Halevy, and Dan Suciu (University of Washington)

Self-similarity in the Web
by Stephen Dill, Ravi Kumar, Kevin McCurley, Sridhar Rajagopalan, D. Sivakumar and Andrew Tomkins (IBM Almaden Research Center)

Session R3: QUANTITATIVE QUERIES
Tuesday 11th September, 14:30-16:00, Aula Michelangelo

Surfing Wavelets on Streams: One-Pass Summaries for Approximate Aggregate Queries
by Anna Gilbert, Yannis Kotidis, S. Muthukrishnan, and Martin Strauss (AT&T Labs-Research)

Analyzing Quantitative Databases: Image is Everything
by Amihood Amir, Reuven Kashi, and Nathan Netanyahu (Bar-Ilan University)

Discovery of Influence Sets in Frequently Updated Databases
by Ioana Stanoi (IBM Watson Research Center), Mirek Riedewald, Divykant Agrawal, and Amr El Abbadi (University of California, Santa Barbara)

Session R4: DATA EXTRACTION FROM THE WEB
Tuesday 11th September, 14:30-16:00, Auditorium

RoadRunner: Towards Automatic Data Extraction from Large Web Sites
by Valter Crescenzi (Roma Tre University), Giansalvatore Mecca (University of Basilicata), and Paolo Merialdo (Roma Tre University)

Visual Web Information Extraction with Lixto
by Robert Baumgartner (Technical University of Wien), Sergio Flesca (University of Calabria), Georg Gottlob (Technical University of Wien)

Crawling the Hidden Web
by Sriram Raghavan and Hector Garcia-Molina (Stanford University)

Session R5: NEW APPLICATIONS
Tuesday 11th September, 14:30-16:00, Aula Raffaello

A Database Index to Large Biological Sequences
by Ela Hunt, Malcolm P. Atkinson, and Robert W. Irving (University of Glasgow)

Storage and Querying of E-Commerce Data
by Rakesh Agrawal, Amit Somani, and Yirong Xu (IBM Almaden Research Center)

Improving Business Process Quality through Exception Understanding, Prediction, and Prevention
by Daniela Grigori (INRIA Lorraine), Fabio Casati, Umeshwar Dayal, and Ming-Chien Shan (Hewlett-Packard)

Session R6: CACHING TECHNIQUES
Tuesday 11th September, 16:30-18:00, Aula Michelangelo

Weaving Relations for Cache Performance (Best Paper award)
by Anastassia Ailamaki (Carnegie Mellon University), David J. DeWitt, Mark D. Hill, and Marios Skounakis (University of Wisconsin at Madison)

Cache-Conscious Concurrency Control of Main-Memory Indexes on Shared-Memory Multiprocessor Systems
by Sang K. Cha, Sangyong Hwang, Kihong Kim, and Keunjoo Kwon (Seoul National University)

Form-Based Proxy Caching for Database-Backed Web Sites
by Qiong Luo and Jeffrey F. Naughton (University of Wisconsin at Madison)

Session R7: SIMILARITY QUERIES
Wednesday 12th September, 09:00-11:00, Aula Michelangelo

FeedbackBypass: A New Approach to Interactive Similarity Query Processing
by Ilaria Bartolini, Paolo Ciaccia (University of Bologna), and Florian Waas (Microsoft)

Fast Evaluation Techniques for Complex Similarity Queries
by Klemens Böhm, Michael Mlivoncic, Hans-Jörg Schek, and Roger Weber (ETH Zurich)

An Extendible Hash for Multi-Precision Similarity Querying of Image Databases
by Shu Lin (IBM Toronto Laboratories), M. Tamer Özsu (University of Waterloo), Vincent Oria (New Jersey Institute of Technology), and Raymond Ng (University of British Columbia)

Similarity Search for Adaptive Ellipsoid Queries Using Spatial Transformation
by Yasushi Sakurai (NTT Cyber Space Laboratories), Masatoshi Yoshikawa (Nara Institute of Science and Technology), Ryoji Kataoka (NTT Cyber Space Laboratories), and Shunsuke Uemura (Nara Institute of Science and Technology)

Session R8: XML QUERIES AND VIEWS
Wednesday 12th September, 09:00-11:00, Auditorium

Answering XML Queries on Heterogeneous Data Sources
by Ioana Manolescu (INRIA Rocquencourt), Daniela Florescu (Propel), Donald Kossmann (University of Munich)

Query Engines for Web-Accessible XML Data
by Leonidas Fegaras and Ramez Elmasri (University of Texas at Arlington)

Querying XML Views of Relational Data
by Jayavel Shanmugasundaram, Jerry Kiernan, Eugene Shekita, Catalina Fan, and John Funderburk (IBM Almaden Research Center)

Views in a Large Scale XML Repository
by Sophie Cluet (INRIA), Pierangelo Veltri (INRIA Rocquencourt), and Dan Vodislav (CNAM Paris)

Session R9: EFFICIENT QUERY EXECUTION I
Wednesday 12th September, 15:00-16:30, Aula Michelangelo

Supporting Incremental Join Queries on Ranked Inputs
by Apostol Natsev (Duke University), Yuan-Chi Chang, John R. Smith (IBM), Chung-Sheng Li (IBM Watson Research Center), and Jeffrey Scott Vitter (Duke University)

Efficient Management of Multiversion Documents by Object Referencing
by Shu-Yao Chien (University of California at Los Angeles), Vassilis J. Tsotras (University of California at Riverside), and Carlo Zaniolo(University of California at Los Angeles)

Efficient Progressive Skyline Computation
by Kian-Lee Tan, Pin-Kwang Eng, Beng Chin Ooi (Nation University of Singapore)

Session R10: DATA MINING AND CLUSTERING
Wednesday 12th September, 15:00-16:30, Auditorium

NetCube: A Scalable Tool for Fast Data Mining and Compression
by Dimitris Margaritis, Christos Faloutsos, and Sebastian Thrun (Carnegie Mellon University)

Mining Multi-Dimensional Constrained Gradients in Data Cubes
by Guozhu Dong (Wright State University), Jiawei Han, Joyce Lam, Jian Pei, and Ke Wang (Simon Fraser University)

C2P: Clustering based on Closest Pairs
by Alex Nanopoulos (Aristotle University of Thessaloniki), Yannis Theodoridis (CTI, Patras), and Yannis Manolopoulos (University of Cyprus)

Session R11: NEW INDEX STRUCTURES
Thursday 13th September, 09:00-10:30, Aula Michelangelo

A fast Index for Semistructured Data
by Brian F. Cooper, Neal Sample (Stanford University), Michael J. Franklin (University of California at Berkeley), Gísli R. Hjaltason (RightOrder Inc.), and Moshe Shadmon (RightOrder Inc.)

Efficient Index Structures for String Databases
by Tamer Kahveci and Ambuj Singh (University of California at Santa Barbara)

Indexing and Querying XML Data for Regular Path Expressions
by Quanzhong Li and Bongki Moon (University of Arizona at Tucson)

Session R12: DATA QUALITY & CLEANING
Thursday 13th September, 09:00-10:30, Auditorium

Declarative Data Cleaning: Language, Model, and Algorithms
by Helena Galhardas (INRIA Rocquencourt), Daniela Florescu (Propel), Dennis Shasha (NYU), Eric Simon (INRIA), and Cristian-Augustin Saita (INRIA Rocquencourt)

Potter's Wheel: An Interactive Data Cleaning System
by Vijayshankar Raman and Joseph M. Hellerstein (University of California at Berkeley)

Update Propagation Strategies for Improving the Quality of Data on the Web
by Alexandros Labrinidis and Nick Roussopoulos (University of Maryland)

Session R13: SPATIAL DATA
Thursday 13th September, 11:00-12:30, Aula Michelangelo

Walking Through A Very Large Virtual Environment In Real-time
by Lidan Shou, Jason Chionh, Zhiyong Huang, Kian-Lee Tan, and Yixin Ruan (National University of Singapore)

Analyzing Energy Behavior of Spatial Access Methods for Memory-Resident Data
by Ning An, Anand Sivasubramaniam, Narayanan Vijaykrishnan, Mahmut Kandemir, Mary Jane Irwin, and Sudhanva Gurumurthi (Pennsylvania State University)

Indexing the Distance: an Efficient Method to KNN Processing
by Cui Yu, Beng Chin Ooi, Kian-Lee Tan (National University of Singapore), H.V. Jagadish (University of Michigan at Ann Arbor)

Session R14: TEMPORAL DATA
Thursday 13th September, 14:15-15:15, Aula Magna

MV3R-Tree: A Spatio-Temporal Access Method for Timestamp and Interval Queries
by Yufei and Tao Dimitris Papadias (Hong Kong University of Science and Technology)

Transaction Timestamping in (Temporal) Databases
by Christian S. Jensen (Aalborg University) and David B. Lomet (Microsoft Research)

Session R15: DBMS ARCHITECTURES
Thursday 13th September, 14:15-15:15, Aula Michelangelo

Online Scaling in a Highly Available Database
by Svein Erik Bratsberg and Rune Humborstad (Clustra AS)

An Evaluation of Generic Bulk Loading Techniques
by Jochen van den Bercken and Bernhard Seeger (University of Marburg)

Session R16: DATA WAREHOUSES
Thursday 13th September, 14:15-15:15, Auditorium

Lineage Tracing for General Data Warehouse Transformations
by Yingwei Cui and Jennifer Widom (Stanford University)

A Data Warehousing Architecture for Enabling Service Provisioning Process
by Yannis Kotidis (AT&T Labs-Research)

Session R17: EFFICIENT QUERY EXECUTION II
Friday 14th September, 09:00-10:30, Aula Michelangelo

Approximate String Joins in a Database (Almost) for Free
by Luis Gravano, Panagiotis G. Ipeirotis (Columbia University), H.V. Jagadish (University of Michigan at Ann Arbor), Nick Koudas, S. Muthukrishnan, and Divesh Srivastava (AT&T Labs-Research)

Dynamic Pipeline Scheduling for Improving Interactive Queries Performance
by Tolga Urhan (Propel) and Michael J. Franklin (University of California at Berkeley)

Functional Properties of Information Filtering
by Rie Sawai, Masahiko Tsukamoto, Yin-Huei Loh, Tsutomu Terada, and Shojiro Nishio (Osaka University)

Session R18: OLAP QUERIES
Friday 14th September, 09:00-10:30, Auditorium

Dynamic Update Cube for Range-Sum Queries
by , Seok-Ju Chun, Chin-Wan Chung, Ju-Hong Lee, and Seok-Lyong Lee (Korea Advanced Institute of Science and Technology)

Intelligent Rollups in Multidimensional OLAP Data
by Gayatri Sathe and Sunita Sarawagi (IIT Bombay)

Distinct Sampling for Highly-Accurate Answers to Distinct Values Queries and Event Reports
by Phillip B. Gibbons (Bell Laboratories)

Session R19: DISTRIBUTED DATA
Friday 14th September, 11:00-12:30, Aula Michelangelo

Hyperqueries: Dynamic Distributed Query Processing on the Internet
by Alfons Kemper and Christian Wiesner (University of Passau)

Comparing Hybrid Peer-to-Peer Systems
by Beverly Yang and Hector Garcia-Molina (Stanford University)

Data Staging for On-Demand Broadcast
by Demet Aksoy (University of California at Davis), Michael J. Franklin (University of California at Berkeley), and Stan Zdonik (Brown University)

Session R20: XML PROCESSING
Friday 14th September, 11:00-12:30, Auditorium

Change-Centric Management of Versions in an XML Warehouse
by Amélie Marian (Columbia University), Serge Abiteboul, Grégory Cobéna (INRIA Rocquencourt), and Laurent Mignet (INRIA/CNAM)

Estimating the Selectivity of XML Path Expressions for Internet Scale Applications
by Ashraf Aboulnaga, Alaa R. Alameldeen, and Jeffrey F. Naughton (University of Wisconsin at Madison)

On Processing XML in LDAP
by Pedro José Marrón and Georg Lausen (University of Freiburg)

INDUSTRIAL TRACK

Session I1: DATA INTENSIVE SOLUTIONS
Tuesday 11th September, 11:00-12:30, Aula Raffaello

Aggregate Maintenance for Data Warehousing in Informix Red Brick Vista
Craig J. Bunger, Latha S. Colby, Richard L. Cole, William J. McKenna, Gopal Mulagund, David G. Wilhite (Informix)

Navigating Large-Scale Semi-Structured Data in Business Portals
Mani Abrol, Neil Latarche, Uma Mahadevan, Jianchang Mao, Rajat Mukherjee, Prabhakar Raghavan, Michel Tourn, John Wang, Grace Zhang (Verity Inc.)

A Comparative Study of Alternative Middle Tier Caching Solutions to Support Dynamic Web Content Acceleration
Anindya Datta, Kaushik Dutta, Helen Thomas, Debra VanderMeer (Chutney Technologies), Krithi Ramamritham (IIT Bombay), Dan Fishman (BEA Systems)

Session I2: E-COMMERCE ENABLING SOLUTIONS
Wednesday 12th September, 15:00-16:30, Aula Raffaello

The Propel Distributed Services Platform
Mike Carey, Steve Kirsch, Mary Roth, Bert Van der Linden, Nicolas Adiba, Michael Blow, Daniela Florescu, David Li, Ivan Oprencak, Rajendra Panwar, Runping Qi, David Rieber, John Shafer, Brian Sterling, Tolga Urhan, Brian Vickery, Dan Wineman, Kuan Yee (Propel)

Internet Data Center
R. Rossini (Netsiel)

Tavant System Architecture for Sell-side Channel Management
Srinivasa Narayanan, Subbu N. Subramanian (Tavant)

Session I3: SYSTEMS AND ARCHITECTURES
Thursday 13th September, 09:00-10:30, Aula Raffaello

Operating System Extensions for the Teradata Parallel VLDB
John Catozzi, Sorana Rabinovici (NCR)

Cache Fusion: Extending Shared-Disk Clusters with Shared Caches
Tirthankar Lahiri, Vinay Srihari, Wilson Chan, Neil Macnaughton, Sashikanth Chandrasekaran (Oracle)

IBM DB2 Spatial Extender - Spatial data within the RDBMS
David Adler (IBM)

APPLICATION TRACK

Session A1: E-GOVERNMENT
Wednesday 12th September, 09:00-11:00, Aula Raffaello

French government activity in the conservation of data and electronic documents
Serge Novaretti (MTIC Paris)

The Long Term Preservation of Authentic Electronic Records
Luciana Duranti (University of British Columbia)

Italian Electronic Identity Card - Principle and Architecture
Mario Gentili (AIPA)

Ontology-Based Support for Digital Government
Athman Bouguettaya (Virginia Tech), Ahmed Elmagarmid (Purdue University), Brahim Medjahed, Mourad Ouzzani (Virginia Tech)

Session A2: E-SERVICES
Thursday 13th September, 14:15-15:15, Aula Raffaello

Discovering Web Services: an Overview
Vadim Draluk (BEA Systems Inc.)

Architectures for Internal Web Services Deployment
Oded Shmueli (Dealigence Inc.)

Session A3: DATA ANALYSIS AND MINING
Friday 14th September, 11:00-12:30, Aula Raffaello

Scientific OLAP for the Biotech Domain
Nam Huyn (SurroMed Inc.)

Warehousing Workflow Data: Challenges and Opportunities
Angela Bonifati (Politecnico di Milano), Fabio Casati, Umeshwar Dayal, Ming-Chien Shan (Hewlett-Packard Laboratories)

A Sequential Pattern Query Language for Supporting Instant Data Mining
Reza Sadri (Procom Technology), Carlo Zaniolo (University of California at Los Angeles), Amir Zarkesh, Jafar Adibi (ZAIAS Technologies Corp.)

TUTORIALS

Tutorial T1: Storage and Retrieval of XML Data using Relational Databases,
Surajit Chandhuri (Microsoft Research) and Kyuseok Shim (KAIST)
Tuesday 11th September, 11:00-12:30, Aula Magna

Abstract: XML is the dominant standard for exchanging and querying information on the Web. Efficient storage and retrieval of native XML data in a scalable manner is becoming increasingly important. All major vendors of relational database systems have undertaken initiatives to build in support for XML in their platforms. Our tutorial discusses the following core challenges in such an approach: (1) storage of XML data in relational systems, (2) query capabilities on stored XML, and (3) publishing of existing relational data in XML.

About the authors: Surajit Chaudhuri is a senior researcher and manager of the Data Management, Exploration and Mining group at Microsoft Research. His research interests include self-tuning database systems, data warehousing, data mining on relational platform, and integration of relational, text and semi-structured information access in the context of XML. Prior to joining Microsoft Research, Surajit was a member of the technical staff at Hewlett-Packard Laboratories in Palo Alto. He did his B.Tech from Indian Institute of Technology-Kharagpur, INDIA, and Ph.D. from Stanford University, USA.

Kyuseok Shim is an assistant professor at Korea Advanced Institute of Science and Technology (KAIST) in Korea. Before joining KAIST, he was a member of technical staff and was one of the key contributors to the Serendip Data Mining project at Bell Laboratories. Before that, he worked for Quest Data Mining project at IBM Almaden Research Center. He received B.E. degree in Electrical Engineering from Seoul National University, and the MS and Ph.D. degrees in Computer Science from University of Maryland, College Park. He has been working in the area of databases, data mining and XML.

Tutorial T2: Data Management for Pervasive Computing,
Mitch Cherniack (Brandeis University), Michael Franklin (University of California, Berkeley), and Stan Zdonik (Brown University)
First part: Tuesday 11th September, 14:30-16:00, Aula Magna
Second part: Tuesday 11th September, 16:30-18:00, Aula Magna

Abstract: Pervasive computing is quickly moving from vision to reality. The combination of global wireless and wired connectivity along with increasingly small and powerful devices enables a wide array of new applications that will change the nature of computing. Beyond new devices and communications mechanisms, pervasive computing requires data management. In this 3-hour tutorial we will: (1) survey the pervasive computing landscape, with an emphasis on requirements for data management; (2) describe key data management technologies, including: data filtering and dissemination, event management, device synchronization, sensor data processing, and user profile management; and (3) outline open problems and areas for future research.

About the authors: Mitch Cherniack is an Assistant Professor at Brandeis University; Michael Franklin is an Associate Professor at the University of California, Berkeley; Stan Zdonik is a Professor at Brown University; Cherniack, Franklin, and Zdonik have worked extensively in the areas of query processing, data broadcast and dissemination, caching and distributed data management. They currently lead the NSF-ITR-sponsored "Data Centers" project investigating profile-driven data management for pervasive computing environments.

Tutorial T3: Caching Technologies for Web Applications,
C. Mohan (IBM Almaden Research Center)
Wednesday 12th September, 09:00-11:00, Aula Magna

Abstract: The emergence of the Web has transformed the execution environment of transactional, server-side applications. 3 and 4-tier application environments involving browser-based clients and Web/application/ database servers are the norm these days. The generation and distribution of multimedia content has also increased dramatically. Attaining good end to end performance under these circumstances requires exploitation of caching technologies. Caching is being deployed at different stages in the software and hardware hierarchies. Work is in progress to design caching standards. In this tutorial, I will provide an introduction to different caching technologies and their support by different products and specialized systems/vendors. I will also discuss the tradeoffs involved with different caching granularities and cache deployment points.

About the author: Dr. C. Mohan joined IBM Almaden Research Center in 1981. He was named an IBM Fellow in 1997 for being recognized worldwide as a leading innovator in transaction management. He received the 1996 ACM SIGMOD Innovations Award. From IBM, he has received 1 Corporate and 8 Outstanding Innovation/Technical Achievement Awards. He is an IBM Master Inventor with 33 patents. Mohan's research results are implemented in numerous IBM and non-IBM systems like DB2, MQSeries, Lotus Domino and S/390 Parallel Sysplex. He is the primary inventor of the ARIES family of recovery and locking methods, and the industry-standard Presumed Abort commit protocol. At VLDB'99, he was honored with the 10 Year Best

Paper Award for the widespread commercial and research impact of the ARIES algorithms. He is an editor of VLDB Journal, and Journal of Distributed and Parallel Databases. Currently, Mohan is a member of the IBM Application Integration Middleware (AIM) Architecture Board and is working on database caching in the context of WebSphere and DB2.

Tutorial T4: Approximate Query Processing: Taming the Terabytes,
Minos Garofalakis and Phillip Gibbon (Bell Laboratories)
Wednesday 12th September, 15:00-16:30, Aula Magna

Abstract: Approximate query processing has recently emerged as a viable solution for dealing with the data volume and query complexity of modern decision-support applications. The strong incentive for high-quality approximate query answers has spurred a flurry of research activity, as well as some modest enhancements to commercial systems. This tutorial aims to provide a comprehensive and meaningful overview of the key research results and commercial developments surrounding approximate query processing. In addition to the systematic coverage of research results in the area, our discussion will focus on: (1) Comparative evaluation of the various proposed data-reduction mechanisms. (2) Suitability and scope of related approximate query processing techniques. (3) State-of-the-art for commercial database servers. (4) Advanced techniques and promising research directions.

About the authors: Minos Garofalakis is a Member of Technical Staff at the Information Sciences Research Center of Bell Laboratories, Lucent Technologies. He joined Bell Labs in 1998, after completing a Ph.D. in computer science at the University of Wisconsin-Madison. His current research interests lie in the areas of data reduction and mining, approximate query processing, data warehousing, and network management. He has served as a program committee member for several international conferences in the database area (including ACM SIGMOD, VLDB, and IEEE ICDE).

Phillip B. Gibbons is also a Member of Technical Staff at the Information Sciences Research Center of Bell Laboratories, Lucent Technologies. He joined Bell Labs in 1990, after completing a Ph.D. in computer science at the University of California at Berkeley. His current research interests include massive data sets, query processing and optimization, approximate query answering, data mining, and parallel computing. He has served on over a dozen program committees for international conferences, and is on the editorial board for the IEEE Transactions on Parallel and Distributed Systems.

Tutorial T5: Information Management for Genome Level Bioinformatics,
Norman Paton and Carole Goble (University of Manchester)
First part: Thursday 13th September, 09:00-10:30, Aula Magna
Second part: Thursday 13th September, 11:00-12:30, Aula Magna

Abstract: Genomics is an experimental, knowledge-based discipline central to biology and biomedical research. The recent sequencing of a number of complete genomes is moving the discipline from a first generation sequencing phase, to a second generation functional one. In both of these phases, novel experimental methods are generating substantial, complex information resources. The nature of the data and the tasks associated with the data will put significant pressure on current information management systems, and thus genome level bioinformatics can be seen as presenting important challenges to database researchers. The aim of this tutorial is to make the challenges presented by genome level bioinformatics familiar to the wider database research community. This will be done be introducing some of the relevant biology, describing some of the challenges associated with the modeling and management of genomic data, and pointing out some of the open issues in genome information management.

About the authors: Norman Paton is a Professor of Computer Science at the University of Manchester. His research has mostly been on object databases, including active databases, deductive object-oriented databases, user interfaces to databases and spatial databases. In bioinformatics, he has considerable experience in the development of information management systems for managing, integrating and analysing biological data.

Carole Goble is a Professor of Computer Science at the University of Manchester. Her research interests are centred around the accessibility of information, particularly the use of terminological and ontological services for the representation and classification of metadata. In Bioinformatics, she has worked on several projects, in particular focusing on the development and use of ontologies for information integration and annotation.

Tutorial T6: Managing Business Processes via Workflow Technology,
Frank Leymann (IBM)
First part: Friday 14th September, 09:00-10:30, Aula Magna
Second part: Friday 14th September, 11:00-12:30, Aula Magna

Abstract: We will review the evolution of business process management technology. The fundamental modelling and runtime capabilities of workflow systems will be presented. Architectural aspects will be discussed based on IBM MQSeries Workflow. The link to extended transactions will be drawn. Structures of applications exploiting workflow technology will be sketched. The relevance of workflow technology for Web Services will become clear.

About the author: Frank Leymann is an IBM Distinguished Engineer, and a member of the IBM Academy of Technology. He studied Mathematics, Physics and Astronomy and received a M.Sc. (1982) and a Ph.D. (1984) both in Mathematics from University of Bochum, Germany. Since 1984 with IBM, Frank began as a system programmer and database programmer, worked on various database technology projects (libraries, universal relations, OO- and OR-DBMS, mining, repositories, tools) and workflow systems. He is in charge of IBM's workflow technology. Since a year he is also working on Web Services technology.

DEMONSTRATIONS

A Prototype Content-Based Retrieval System that Uses Virtual Images to Save Space,
Leonard Brown and Le Gruenwald (University of Oklahoma)

ACTIVIEW: Adaptive Data Presentation Using SuperSQL,
Yoko Maeda and Motomichi Toyama (Keio University)

AgFlow: Agent-Based Cross-Enterprise Workflow Management System,
Liangzhao Zeng, Boualem Benatallah (University of New South Wales), Anne H.H. Ngu (Telcordia Technologies), Phuong Nguyen (University of New South Wales)

Cache Portal: Technology for Accelerating Database-Driven E-Commerce Web Sites,
Wen-Syan Li, K.Selçuk Candan, Wang-Pin Hsiung, Oliver Po, Divyakant Agrawal, Qiong Luo, Wei-Kuang Waine Huang, Yusuf Akça, Yusuf Akça, and Cemal Yilmaz (C&C Research Laboratories NEC Inc.)

Developing an Indexing Scheme for XML Document Collection Using the Oracle8i Extensibility Framework,
Seema Sundara, Ying Hu, Timothy Chorma, Nipun Agarwal, and Jagannathan Srinivasan (Oracle)

Enabling End-Users to Construct Data-Intensive Web-Sites from XML Repositories: an Example-Based Approach,
Atsuyuki Morishima (Shibaura Institute of Technology), Seiichi Koizumi, Hiroyuki Kitagawa, and Satoshi Takano (University of Tsukuba)

Flexible and Scalable Digital Library Search,
Henk Ernst Blok (University of Twente), Menzo Windhouwer (CWI Amsterdam), Roelof van Zwol, Milan Petkovic, Peter M.G. Apers (University of Twente), Martin Kersten (CWI Amsterdam), Willem Jonker (University of Twente)

LoPiX: a System for XML Data Integration and Manipulation,
Wolfgang May (University of Freiburg)

PicoDBMS: Validation and Experience,
Nicolas Anciaux, Christophe Bobineau, Luc Bouganim, Philippe Pucheral (University of Versailles), Patrick Valduriez (University of Paris 6)

SIT-IN: a Real-Life Spatio-Temporal Information System,
Giuseppe Sindoni, Leonardo Tininini, Amedea Ambrosetti, Cristina Bedeschi, Stefano De Francisci, Orietta Gargano, Rossella Molinaro, Mario Paolucci, Paola Patteri, and Pina Ticca (ISTAT)

Smooth a Distributed Multimedia Database System,
Harald Kosch, Lászlo Böszörményi, Alexander Bachlechner, Christian Hanin, Christian Hofbauer, Margit Lang, Carmen Riedler, Roland Tusch (University of Klagenfurt)

Supervised Wrapper Generation with Lixto,
Robert Baumgartner (Technical University of Wien), Sergio Flesca (Università della Calabria), and Georg Gottlob (Technical University of Wien)

The WorlInfo Assistant: an Application for Spatio-Temporal Information Integration on the Web,
Jose Luis Ambite, Craig Knoblock, Mohammad R. Kolahdouzan, Maria Muslea, Cyrus Shahabi, and Snehal Thakkar (University Of Southern California & Information Science Institute)

WARLOCK: a Data Allocation Tool for Parallel Warehouses,
Thomas Stöhr and Erhard Rahm (University of Leipzig)

WebFilter: a High-Throughput XML-Based Publish and Subscribe System,
João Pereira (INRIA), Françoise Fabret (INRIA), H. Arno Jacobsen (University of Toronto), François Llirbat (INRIA Rocquencourt), Dennis Shasha (NYU)

VXMLR: a Visual XML-Relational Database System,
Aoying Zhou (Fudan University), Hongjun Lu (Hong Kong University of Science and Technology), Shihui Zheng, Yuqi Liang, Long Zhang, Wenyun Ji, Zengping Tian (Fudan University)

PANELS

Collaborative Analytical Processing – Dream or Reality?
Tuesday 11th September, 16:30-18:00, Auditorium
Chair: Bill O'Connell (IBM)
Panelists: Vaishnavi Anjur (Hyperion) and Andy Witkowski (Oracle)
Overview: Majority of current Business Intelligence Data (BID) is spread out between incompatible tools like RDBMSs, OLAP engines, and spreadsheets. Bridges between them allow interchange of data and metadata thus providing a small degree of BID sharing, but due to lack of metadata standards, this sharing is limited to specific installations. This creates an unacceptable situation where an analyst cannot get a complete picture of a business. A solution is needed, the Collaborative Analytical Processing (CAP) solution, which imposes a very tight integration between the tools so (meta) data interchange, change management, scalability and data availability is as good as in RDBMSs, and performance of OLAP queries is as good as in the specialized OLAP engines. Any CAP solution must assist business tools through simplification and integration so they can focus on business models, relationship management, fact discovery and presentation than on availability, performance and scalability.
This panel will discuss feasibility of such solution and its place in the spectrum between RDBMS and specialized OLAP engines. Topics will include:
- Should we add new objects to SQL like cubes and dimensions?
- How should standard metadata be represented? Should it be in new SQL objects or standards like CWM?
- How much computation should be done in the tool vs. RDBMs?
- Identify type of queries that OLAP tools will generate against RDBMs
- Identity new types of optimizations needed for these queries
- Identify new execution and access methods to execute these queries
- Identify incremental maintenance issues for CAP where all the data may or may not be co-resident
- How soon will we hit the limits of SQL in terms of expressibility?

Are Web services the Next Revolution in E-Commerce?
Wednesday 12th September, 17:00-18:30, Aula Magna
Chair: Dick Tsur (BEA Systems)
Panelists: Serge Abiteboul (INRIA and Xyleme), Rakesh Agrawal (IBM Almaden Research Center), Umesh Dayal (Hewlett-Packard Laboratories), Johannes Klein (Microsoft Research), and Gerhard Weikum (University of the Saarland)
Overview: Electronic commerce in its different manifestations is spreading and rapidly affecting all of us. In most cases we, as individuals, come in touch with it when we purchase goods or services over the Web. This practice is usually referred to as "B2C" or business to consumer interaction. Yet, this is only the tip of the iceberg: the real revolution (to use a good cliché) will come when businesses will electronically conduct their business with other businesses over the Web. This is known as "B2B" or business to business, and is expected to introduce enormous efficiencies into the market place. Today, the trend is shifting from B2C to B2B and a number of leading companies are already engaged in B2B activities: companies such as Ariba and CommerceOne offer to create and operate marketplaces. Other companies such as BEA, IBM, Vitria, Tibco and others offer the infrastructure software and platforms for these marketplaces. In addition, there is an intensive activity in the creation of standards to enable the exchange of information at the B2B level. According to a recent Gartner report, $400 Billion worth of B2B commerce was transacted during the year 2000 and this number is expected to double this year. Web services (or their close relative, E-services) are presently touted to become the next infrastructure technology that at long last, will unleash these efficiencies and in the process, will transform the Web as we know it today, into a distributed application-to-application network with all of the trappings of peer-to-peer architecture.
Panel members who from industry and from academia, have been asked to state their positions on the following issues:
- Can we learn anything useful from the past e.g., from CORBA services?
- Are there research issues that need to be resolved before the picture painted here can become a reality?
- How critical is the adoption of a common set of standards for Web services?
- What is the academic perspective on Web services?
- What is the industrial perspective?
- Would it be possible to speculate on a time line for these developments?

Storage Service Providers: a Solution for Storage Management?
Thursday 13th September, 11:00-12:30, Auditorium
Chair: Banu Ozden (Bell Labs)
Panelists: Jim Gray (Microsoft Research), John Wilkes (Hewlett-Packard Labs) David J. DeWitt (University of Wisconsin at Madison), and Bruce Gordon (StorageNetworks)

Overview: We are witnessing an increasing number of Storage Service Providers (SSP) emerging on the premise that SSPs can provide managed storage services more efficiently than enterprises, which are allocating a large percentage of their IT spending on storage and its management. Although there is a belief that managing large amounts of storage is difficult and expensive, the problems of storage management are not well identified and quantified, and the commercial viability of the SSP model is not assured. The goal of this panel is to discuss 1) management challenges related to data storage; 2) issues surrounding the SSP paradigm to understand under which conditions this paradigm provides a viable alternative; and 3) the implications of the SSP paradigm for database technology.

Some potential issues of controversy and questions:

- Are Storage Service Providers (SSP) here to stay?
- Can SSPs provide the same level of performance and security?
- Would you outsource your company's data?
- For what applications SSPs provide a better solution?
- What is really the cost of storage management?
- Popular number used today claims that for each $1 spent on storage equipment, $8 is spent for management. Is this correct?
- What are the storage management tasks?

MCGRAW-HILL PRESENTATION

Primis and PowerWeb: McGraw Hill's On-Line Learning Products
Daniela Cipollone and Marcella Rinaldi (McGraw-Hill)
Wednesday 12th September, 18:30-20:30, Aula Magna

This event will be an occasion for contact between our Publishing Group and the professors attending VLDB, the subject being the strategies and the objectives of McGraw-Hill in the field of new technologies and their impact on teaching. During the presentation, we will also introduce our most important tools which have been developed by our American headquarters and which have already proven their efficiency in the United States. The first product is Primisonline, a tool developed in the field of print-on-demand and e-books, which allows teachers to access the vast McGraw-Hill library and create customized learning materials. The second product is PowerWeb. This is a vast database of information, articles, and didactic material which is updated daily. The event should be an opportunity for dialogue between McGraw-Hill and universities.

The presentation will be followed by a cocktail party offered by McGraw-Hill.

SOCIAL EVENTS

There will be several social events at VLDB'01, including the Reception on Monday, September 10th evening, a Concert at the Caracalla Baths on Tuesday, September 11th evening, and the Conference Banquet on Thursday, September 13th evening.

Welcome Reception

The Welcome Reception will take place at Palazzo Caffarelli, on the highest point of the Campidoglio. This beautiful palace offers breathtaking views of Roma from its terraces.

Concert at the Caracalla Baths

The evocative scene of the Caracalla Baths will be the setting of this spectacular concert. A soprano, a tenor and a baritone, accompanied by pianoforte, will sing for your delight some of the most beautiful pieces from Italian Opera in a place of incomparable beauty.

Conference Banquet

A stop in the "Santa Barbara" stables, a past setting for the World Riding Championships, opens your evening of games, snacks and... surprises.

The conference banquet will be held in the Odescalchi castle of Bracciano. This majestic castle, one of the most beautiful European feudal manor houses, arises from the southern bank of Lake Bracciano, at a short distance from Roma. A chance to sample the delights of the local cuisine together with contemporary entertainment in a medieval castle guarantees an evening to remember.

TOURS FOR ACCOMPANYING PERSONS

Artistic Roma

Tuesday 11th September, 2001
Wednesday 12th September, 2001
Thursday 13th September, 2001
Friday 14th September, 2001

Free pick-up service at hotels from approximately 8:15 to 8:45 am.
All-inclusive price per person: 38.73 EUR/75,000 ITL

Villa Borghese, the most beautiful park in Roma created by Cardinal Scipione Borghese – Porta Flaminia – cross the Tiber River – Via Cola di Rienzo – Vatican City: during the visit to the Vatican Museums you will see the Hall of the Greek Cross, the Candelabra Gallery, the beautiful Tapestry Gallery, the cartographic study in the Geographical Maps Gallery, the Raphael Rooms, entirely frescoed by this famous master and, above all, the Sistine Chapel, with Michaelangelo's recently restored Genesis and Last Judgement. Return to hotels or nearest point.

Ancient Ostia

Wednesday 12th September, 2001

Free pick-up service at hotels from approximately 8:15 to 8:45 am
All-inclusive price per person: 41.31 EUR/80,000 ITL

After a trip of just 30 minutes along Via dei Fori Imperiali, with views of the Colisseum, Tiberina Island and the Synagogue, after crossing the Tiber and taking the Via del Mare, we reach ancient Ostia. This was the ancient port of Roma. It was founded in the 4th century BC, and as the power of Roma grew Ostia became more and more important, mainly as a naval base but also as the "Emporium of Roma" and as a transit point for important representatives of the cultural and political life of that period. Ostia declined with the financial and political crisis of the Roman Empire. Subsequent raids on the city, which was virtually defenceless by then but still rich in precious materials, finally convinced the few people still living there to abandon it. Today, Ostia is just as it was in ancient times: an entire city, whose shape and outline make it easy to imagine life in the Roman era. The excavations at Ostia, started at the beginning of the last century, make comparison with Roma inevitable, not in terms of architectural value but as an overall view of how life was organised in the Roman world. This suggestive visit magically leads us into an ancient world as we admire the ancient Necropolis, Piazzale della Vittoria, Neptune's Baths with their wonderful mosaics, the firemen's headquarters, the theatre built by Agrippa, Via dei Mulini and Diana's house. We reach the forum Thermae, the Basilica and the Round Temple. Outside the city is the Synagogue, which was the most ancient Hebraic seat in the Western world. Return to Roma and the hotel or the nearest point.

Roma by night with dinner and music

Wednesday 12th September, 2001

Free pick-up service at hotels from 7:30 pm
All-inclusive price per person: 64.55 EUR/125,000 ITL

An unforgettable night tour of the Eternal City: Via Veneto – Barberini Square – Trevi Fountain (stop) – Quirinal Hill – Piazza Navona – Castel Sant'Angelo – St. Peter's Basilica – Trastevere, view of the Tiberina Island and the Synagogue – Palatine Hill – Circus Maximus – Caracalla Baths. During the dinner you will enjoy some typical Roman dishes and Italian piano bar music. Return to hotel or nearest point.

Tivoli: Villa Adriana – Villa D'Este

Tuesday 11th September, 2001
Wednesday 12th September, 2001

Free pick-up service at hotels from approximately 2:15 to 2:45 pm

All-inclusive price per person: 41.31 EUR/80,000 ITL

A drive through the Roman countryside to Tivoli. Visit Villa Adriana, the most beautiful imperial villa designed and built by Emperor Adriano at the beginning of the 2nd century A.D., and Villa d' Este, one of the most enchanting villas dating from the late Renaissance period. Its gardens with their countless fountains and cascades are considered one of the wonders of Roma and its surrounds. Return to hotel or nearest point.

REGISTRATION INFORMATION

Conference Registration Cost

	Early (before August 10th)	Late/On-site (After August 10th)
Regular Registration	590 EUR/1,142,399 ITL	640 EUR/1,239,213 ITL
Student Registration	170 EUR/329,166 ITL	200 EUR/387,254 ITL

Workshop Registration Cost

DBTEL Workshop	95 EUR/183,946 ITL
TeS Workshop	80 EUR/154,902 ITL
KRDB Workshop	75 EUR/145,220 ITL

SOCIAL EVENTS

Additional Ticket for the concert (tuesday)	20.65 EUR/40,000 ITL
Additional Ticket for the banquet (thursday)	94.96 EUR/184,000 ITL

Accompanying Person's Tours

Artistic Roma	38.73 EUR/75,000 ITL
Ancient Ostia	41.31 EUR/80,000 ITL
Roma by Night with Dinner and Music	64.55 EUR/125,000 ITL
Tivoli: Villa Adriana – Villa D'Este	41.31 EUR/80,000 ITL

Registration Conditions

- Regular registration includes: attendance at all sessions, copy of proceedings, teas/coffees, lunches, tutorial attendance, admission to Reception, Concert at the Caracalla Baths and Banquet.
- Student registration includes: everything except the Banquet.
- Please submit one registration form for each delegate.
- Fees will be refunded if a written request is received at least 30 days prior to the event. There will be an administrative charge of 20 Euros for cancellations. No refund will be made for cancellations received less than 30 days prior to the event. Substitutions may be made at any time.
- Cancellations will be processed after the conference.

Workshops Registration Conditions

- Registration includes: attendance to each workshop, copy of proceedings, teas/coffees, lunch (two lunches for the TeS workshop). Please note that the TeS and KRDB workshops largely overlap.
- Please submit one registration form for each delegate.
- It is possible register for a workshop without registering for the conference, with an administration fee of 20.
- Fees will be refunded if a written request is received at least 30 days prior to the event. There will be an administrative charge of 20 Euros for cancellations. No refund will be made for cancellations received less than 30 days prior to the event. Substitutions may be made at any time.
- Cancellations will be processed after the conference.

Choice of Hotel and Hotel Description

A range of accommodation booking options are available to suit all requirements and budgets. All prices are per room per night and include breakfast and VAT. The connection with the Pontificia Università Urbaniana is assured from a shuttle service that will leave from every Hotel. A location map can be found at the conference Web site: http://www.dia.uniroma3.it/vldb2001/.

<u>4 STAR HOTEL</u>

[1] HOTEL DEI MELLINI
(Single 216.92 EUR/420,000 ITL – Double 268.56 EUR/520,000 ITL)
Located on the right bank of the Tiber, between the Spanish Steps and St. Peter's Basilica. Rooms have desks with fax and modem lines, individually controlled air-conditioning, minibar, private safe, satellite TV, direct-dial telephone, hair dryer. Non-smoking rooms available on request. The hotel also features the following services: Buffet breakfast, American Bar, room service, rooftop terrace, currency exchange, personal computer and mobile-phone rental.

[2] HOTEL FARNESE
(Single 139.45 EUR/270,000 ITL – Double Room for single person use 154.94 EUR/300,000 ITL – Double 180.76 EUR/350,000 ITL)
Once an aristocratic residence, today it is the site of Hotel Farnese, a luxury hotel in the heart of Prati, one of Roma's most elegant districts. Two minutes walk from "Lepanto" metro station and situated half-way between the Vatican City and the historical centre, Hotel Farnese, with its charming and exclusive ambience, is a superb setting for business and leisure travellers alike. Guest accommodation is spacious and all rooms offer modern amenities.

[3] HOLIDAY INN ROMA ST. PETER'S
(Double Room for single person use 211.75 EUR/410,000 ITL – 258.22 EUR/Double 500,000 ITL)
The Holiday Inn St. Peter's is located in a beautiful residential area near Vatican City. All rooms are equipped with individually controlled air conditioning, colour TV with both satellite, radio and direct dial telephone. Swimming pool, tennis courts, sauna and massage are available for guests.

[4] HOTEL VILLA PAMPHILI
(Double Room for single person use 175.60 EUR/340,000 ITL – Double 232.41 EUR/450,000 ITL)
The hotel is situated in a residential area a few minutes from the Vatican City. All rooms are equipped with direct line telephone, radio, minibar, colour TV, pay TV and individually controlled air conditioning.

<u>3 STAR HOTEL</u>

[5] HOTEL ADRIANO
(Single 108.46 EUR/210,000 ITL)
Located in the very heart of the historic centre of the city close to the Pantheon, Piazza Navona and Piazza di Spagna. Rooms have private bathroom, colour TV, direct-dial phone and air conditioning on request. The Hotel has a breakfast room and bar.

[6] HOTEL AMALIA
(Single 129.12 EUR/250,000 ITL – Double 180.76 EUR/350,000 ITL – Triple 232.41 EUR/450,000 ITL)
Hotel Amalia is only a few steps from St. Peter's Basilica and the Vatican museums. Situated in a 19th century building the hotel is also in an ideal position for shopping, theatres and restaurants. All rooms are completely renovated.

[7] ARA PACIS HOTEL
(Double 103.30 EUR/200,000 ITL – Triple 154.94 EUR/300,000 ITL)
The hotel stands next to the Palace of Justice, in the heart of Roma and near the main historic and artistic sites such as St. Peter's Square and the Vatican, Castel Sant'Angelo, the Spanish Steps, the Trevi Fountain, The Pantheon and Piazza Navona. Rooms are provided with bath, direct-dial phone and satellite TV. The hotel has a breakfast room.

[8] HOTEL ARCANGELO
(Double 201.42 EUR/390,000 ITL)
Situated the heart of Prati, one of Roma's most elegant districts. Rooms are equipped with direct phone, colour TV, frigobar and centralised air conditioning. The hotel has a breakfast room and bar.

[9] HOTEL CAPRICE
(Single 132.73 EUR/257,000 ITL – Double Room for single person use 162.17 EUR/314,000 ITL – Double 176.63 EUR/342,000 ITL)
Located at two steps from the famous Via Veneto, in the heart of the centre of the Roman "Dolce Vita", guests are welcomed to a fascinating ambience of style and sober elegance.

[10] HOTEL CARAVEL
(Single 103.30 EUR/200,000 ITL – Double Room for single person use 113.62 EUR/220,000 ITL – Double 146.16 EUR/283,000 ITL)
Located 3 km from the town centre, 1.5 km from the nearest station, and 25km from the airport. All rooms have private bathroom (shower or bath), telephone, satellite tv, minibar, safety box, hairdrier, air conditioning on request. The hotel has a large reception area, a bar, and two meeting rooms. Close to the hotel there is a garage and an open parking area for your car.

[11] HOTEL CLODIO
(Double Room for single person use 139.45 EUR/270,000 ITL – Double 165.27 EUR/320,000 ITL)
Overlooking RAI-TV centre, a very short distance from St. Peter's and 500 metres from the Olympic Stadium. All rooms have bath or shower, direct dialing telephone, TV-SAT, air conditioning. Roof-Garden and American Bar. Every modern comfort in elegant surroundings. Adjoining Restaurant

[12] HOTEL DELLA TORRE ARGENTINA
(Double Room for single person use 154.94 EUR/300,000 ITL – Double 191.09 EUR/370,000 ITL)
Situated in the historical centre of Roma, the hotel represents with its style and elegance a reflection of the eternal city. You will be able to admire Roma from the Hotel's terrace with a panoramic view, a fascinating experience which will always remain with you. Every room has private bathroom with bath or shower, hair dryer, minibar, direct dial phone, colour SAT-TV, air conditioning with individual temperature control and double glazed windows.

[13] HOTEL DIPLOMATIC
(Single 132.73 EUR/257,000 ITL – Double Room for single person use 162.17 EUR/314,000 ITL – Double 176.63 EUR/342,000 ITL)
A building in the style of Umberto with an entirely rebuilt interior, offers clients a faultless service in an intimate and welcoming environment. On the first floor our luminous patio restaurant awaits you with its traditional Italian cuisine. Moreover you'll find an American bar, a TV room and qualified staff always at your service. The smart, comfortable rooms all have bath and shower, minibar, radio, telephone with direct line, colour TV and centralized air conditioning. Fax, telex and individual safety deposit boxes are at clients' disposal. Garage available.

[14] HOTEL EMMAUS
(Double Room for single person use and Double 129.12 EUR/250,000 ITL)
The hotel is located 100 meters from St. Peter Square. Recently renovated, all rooms have private bath or shower and direct dial telephone, colour satellite tv, and minibar. Private garage. There is a small bar in the lobby.

[15] HOTEL GAMBRINUS
(Single 143.58 EUR/278,000 ITL – Double 184.38 EUR/357,000 ITL)
The bus stop for Vatican City, Piazza Venezia, Trevi fountain,Piazza Navona and the Pantheon is a 3 minute walk. At the Hotel Gambrinus you can appreciate the exquisite hospitality and refined service of a hotel which knows how to unite comfort and tranquillity with the possibility of living immersed in the heart of the capital. All rooms are provided with direct line phone, full air conditioning, satellite TV, internet connection, in room movies, minibar.

[16] HOTEL LA ROVERE
(Double Room for single person use 144.61 EUR/280,000 ITL – Double 170.43 EUR/330,000 ITL – Triple 191.09 EUR/370,000 ITL)
Situated in the historical centre of the city close to St. Peter's Basilica and Castel Sant'Angelo. Rooms are provided with minibar, direct-dial phone, colour TV, security box.

[17] HOTEL PARKER
(Single 77.47 EUR/150,000 ITL – Double 103.30 EUR/200,000 ITL)
Situated close to the historical centre, at 800m from Termini station. The hotel has been recently renovated and offers all rooms with private bath or shower and direct telephone and minibar.

[18] HOTEL S. VALENTINO
(Single 100.71 EUR/195,000 ITL – Double 123.94 EUR/240,000 ITL)
The hotel is situated very close to St. Peter's Basilica and the Vatican Museums. Recently renovated, it offers all rooms are equipped with private bath or shower and direct telephone, colour TV and minibar.

[19] HOTEL SPRING HOUSE
(Double 191.09 EUR/370,000 ITL)
Spring House is located in the historical centre of Roma, very close to St. Peter's Basilica and the Vatican Museums.

2 STAR HOTEL

[20] HOTEL ERDARELLI
(Single 87.79 EUR/170,000 ITL – Double 113.6 EUR/220,000 ITL)
The choice of Hotel Pensione Erdarelli is the choice of a cofortable environment in the centre of Roma, between the Spanish Steps and the Trevi Fountain. The Erdarelli family has been serving you since 1935. Rooms have bath or shower and telephone; some rooms with balcony. Free security service, breakfast room and tv room.

[21] RESIDENZA MADRE PIE
(Single 72.31 EUR/140,000 ITL)
Situated in the heart of the eternal city close to Saint Peter's Square, it offers clients 73 recently renovated rooms, all with bath and shower, air conditioning, telephone with direct line.

[22] HOTEL NEW YORK
(Single 102.25 EUR/198,000 ITL – Double 136.34 EUR/264,000 ITL)
Close to Termini Station but situated in a very quiet area; rooms are provided with private bath, direct line phone and colour TV.

BED & BREAKFAST

A limited number of rooms are available in Bed & Breakfast in Roma. Prices range from 25.83–36.16 EUR / 50,000–70,000 ITL for a single room.

Please make your request on the hotel reservation form.

Hotel Booking Conditions

Rooms will be allocated on a "first come, first served" basis. In the event of your choice being unavailable, we will allocate an alternative room based on the budget of the preferred hotel/proximity to the conference venue.

Reservations will only be accepted using the official accommodation booking form. Any cancellations or amendments must be made through CONSULTA UMBRIA by fax or e-mail and NOT with the hotel.

The booking form must be accompanied by payment of a cautionary deposit that is:

- 4 star hotel   263.40 EUR/510,000 ITL
- 3 star hotel   201.42 EUR/390,000 ITL
- 2 star hotel   136.34 EUR/264,000 ITL
- Cheap accommodation   36.16 EUR/70,000 ITL

In the event of non-arrival, the person who has signed the booking form agrees to accept all legitimate charges raised at the discretion of the hotel.

Hotel cancellation charges:

- 45 days to 30 days prior to arrival: 50% of your total booking charges;
- 30 days to 15 days or less prior to arrival: 100% of your total hotel booking charges;
- Non-arrival: 100% of your total hotel booking charges.

Any additional charges incurred must be settled directly with the hotel management before departure.

REGISTRATION FORM

Please complete the form below and send it to CONSULTA UMBRIA by printing the form and faxing or posting it at the following address.

CONSULTA UMBRIA SRL Piazza Italia, 9 – 06121 Perugia(Italia) Telephone: +39 075 5720608 – Fax: +39 075 5721913 E-Mail: vldb2001@consultaumbria.com

Please read the Registration and Hotel Conditions before filling in the form.

Registration type   REGULAR ☐   STUDENT ☐

General Information

TITLE			
SURNAME			
NAME			
INSTITUTION			
ADDRESS			
CITY			
STATE/COUNTY			
POSTAL CODE			
COUNTRY			
TELEPHONE N°		FAX N°	
E-MAIL			
VAT N° / C.F.*			

* A social security number and VAT registration number are necessary for emission of invoices relating to subscription fees for all Italian and other EC participants. Where the invoice is to be made out to a third party (e.g., university or company of participant), this must be specified below.

Do not include my personal data in a published list of attendees   ☐

Badge details

NAME	
AFFILATION	

Name of accompanying person(s)

1)
2)
3)
4)

Special needs

Please fill in the following box if your receipt/invoice has to be made out differently

NAME/COMPANY/INSTITUTE			
ADDRESS			
CITY			
STATE			
POSTAL CODE			
COUNTRY			
TELEPHONE N°		FAX N°	
E-MAIL			
VAT N° / C.F.			

VLDB 2001 Conference Registration

REGISTRATION TYPE	Early (before August 10th)	Late/On-site (after August 10th)
Regular Registration	590 EUR/1,142,399 ITL ☐	640 EUR/1,239,213 ITL ☐
Student Registration	170 EUR/329,166 ITL ☐	200 EUR/387,254 ITL ☐

Workshop Registration

WORKSHOP	FEE	
DBTEL Workshop Registration	95 EUR/183,946 ITL	☐
TeS Workshop Registration	80 EUR/154,902 ITL	☐
KRDB Workshop Registration	75 EUR/145,220 ITL	☐

Social Events

SOCIAL EVENT	COST	N° OF PERSONS
Additional tickets for the concert at the Caracalla Baths	20.65 EUR/40,000 ITL	
Additional tickets for the banquet at Bracciano Castle	94.96 EUR/184,000 ITL	

Tours For Accompanying Person

TOUR	DATE	COST	N° OF PERSONS
Artistic Roma	September 11th	38.73 EUR/75,000 ITL	
Artistic Roma	September 12th	38.73 EUR/75,000 ITL	
Artistic Roma	September 13th	38.73 EUR/75,000 ITL	
Artistic Roma	September 14th	38.73 EUR/75,000 ITL	
Ancient Ostia	September 12th	41.31 EUR/80,000 ITL	
Roma by Night with Dinner and Music	September 12th	64.55 EUR/125,000 ITL	
Tivoli: Villa Adriana – Villa D'Este	September 11th	41.31 EUR/80,000 ITL	
Tivoli: Villa Adriana – Villa D'Este	September 12th	41.31 EUR/80,000 ITL	

Hotel Reservation: ☐ YES   ☐ NO

If your answer is "YES", please tick your choice on the list below:

CATEGORY	CAUTIONARY DEPOSIT	
4 STAR HOTEL	263.40 EUR/510,000 ITL	☐
3 STAR HOTEL	201.42 EUR/390,000 ITL	☐
2 STAR HOTEL	136.34 EUR/264,000 ITL	☐
CHEAP ACCOMODATION	36.16 EUR/70,000 ITL	☐

Please tick this box to confirm you have viewed hotel prices: ☐

If your choice are not available, we will offer you an alternative hotel within your budget range.

Accommodation Required

ARRIVE	DAY:	MONTH:	YEAR:	
DEPART	DAY:	MONTH:	YEAR:	
NUMBER OF NIGHT(S)				
PREFERRED HOTEL				
ROOM TYPE	N°_____ SINGLE ROOM	N°_____ DOUBLE ROOM FOR SINGLE PERSON USE		
	N°_____ DOUBLE ROOM	N°_____ TRIPLE ROOM		

Name(s) of occupant(s)

1)	2)
3)	4)
5)	6)

Summary Of Payment

CONFERENCE REGISTRATION FEE	_____ EUR	_____ ITL
N°__ WORKSHOP REGISTRATION FEE	_____ EUR	_____ ITL
N°__ ADDITIONAL BANQUET TICKETS	_____ EUR	_____ ITL
N°__ ADDITIONAL CONCERT TICKETS	_____ EUR	_____ ITL
N°__ TOURS	_____ EUR	_____ ITL
HOTEL DEPOSIT	_____ EUR	_____ ITL
AGENCY FEE	10.33 EUR	20,000 ITL
TOTAL AMOUNT	_____ EUR	_____ ITL

Way of payment

☐ CREDIT CARD

TYPE OF CARD	☐ VISA	☐ EUROCARD	☐ MASTERCARD	☐ AMERICAN EXPRESS
CARDHOLDER NAME				
CARD NUMBER				
EXPIRY DATE				
SIGNATURE				

☐ CHEQUE

Payment can be made using Eurocheque or a bank cheque. Cheques should be made payable to CONSULTA UMBRIA SRL.

☐ BANK TRANSFER

Payment to:

> Banca Nazionale del Lavoro – Perugia Centro Agency
> Piazza Italia, 9 – 06121 Perugia (ITALY)
> ABI CODE 01005/CAB CODE 03000
> ACCOUNT N°20203 headed to CONSULTA UMBRIA/VLDB 2001

Please send copy of the bank receipt

PLEASE, FAX, WRITE OR EMAIL:

CONSULTA UMBRIA SRL
Piazza Italia, 9 – 06121 Perugia(Italia)
Telephone: +39 075 5720608 – Fax: +39 075 5721913
E-Mail: vldb2001@consultaumbria.com

VLDB PROGRAM FOR SUPPORTING PARTICIPATION FROM DEVELOPING COUNTRIES

A number of bursaries (funded by the Organizing Committee of VLDB 2001 with its sponsors and by the VLDB Endowment) are available to help with the cost of attending VLDB for participants from developing countries. Due to the geographic location of Roma, the program is particularly designed to aid participation from Eastern Europe or North African Counties. Recipients will be eligible for reduced registration rates (150 US dollars) and will be helped to find low-cost accomodation (below 50 dollars/night). Depending on availability, further contributions may be granted, especially to students.

Please note the following points:

1. Eligibility is not limited to those presenting a paper.
2. Although there is no age limit, the program will favour the participation of young researchers.

Please send an application – preferably by June, 1 – consisting of:

- A one-page statement describing why you wish to attend VLDB and how it would benefit you;
- A curriculum vitae;

to the following address:

Giansalvatore Mecca
DIFA – Universita' della Basilicata
c.da Macchia Romana
85100 Potenza, Italy
mecca@unibas.it
fax: +39-0971-205160

Requests received by June 1 will be replied to by June 15.
Subsequent requests will be considered for as long as the budget permits.

GENERAL INFORMATION

About Roma

Much has been written about Roma, its monuments and museums, its fountains and villas, its history and people. Many volumes would be needed to tell even a small part of its history, art and architecture, or to hint at what can be seen here, including Michelangelo's Last Judgement in the Sistine Chapel, the Vatican Museums, St. Peters's, the Roman Forum, the Colosseum, the Pincio, the Trevi Fountain, the Pantheon...

Everything to be said about this city has probably been said before. However, Roma cannot be described completely; it needs to be experienced in person. It is impossible to be bored in Roma. Besides its churches, monuments,and museums, Roma has more to offer: classical music, theater and ballet, jazz, sport, pubs, and all kinds of shops and elegant boutiques.

Roma is easily reachable from every part of the world, having two international airports and an international train station. Moreover, all infrastructure and public transportation networks were greatly improved for the Jubilee year 2000. The Jubilee is celebrated by the Catholic Church every twenty-five years, and is a very important event for its believers. The Jubilee year 2000 was even more important, given its co-incidence with the beginning of the new millennium. Tens of millions of pilgrims visited Roma during the Jubilee year, which ended on January 6th, 2001. In order to deal with this multitude of people, Roma had renovated its monuments and expanded its accommodation facilities.

Venue

PONTIFICIA UNIVERSITÀ URBANIANA
Official Entrance : Via Urbano VIII

The conference will be held at the Pontificia Università Urbaniana, one of the universities belonging to the Catholic Church, which is located in the center of the city, on the top of a small hill overlooking St. Peter's.

The Sistine Chapel and Vatican Museums, as well as many other historical monuments and typical old city districts, are within a short walking distance. The site consists of several antique buildings within a wonderful park, from which it feels that one can almost touch Michelangelo's dome or Bernini's Colonnade.

Alitalia Official Carrier

Alitalia is the Official Carrier. Foreign delegates may contact their nearest Alitalia Office (see the attached list or visit the Alitalia Web site: http://www.alitalia.it) to request information and make reservations on available flights to Roma (Italy). Respond "WQ" when asked for the Identification Code.

Delegates coming from the United States may contact their nearest Alitalia Office or call the toll-free number 1-800-223-5730 to reserve flights and receive tickets by mail.

All participants will benefit from a special discount on available fares.

Secretariat and registration desk

The desk for on-site workshop and conference registration located at the Pontificia Università Urbaniana will be open as follows:

Monday	9:00 am – 1:00 pm only for workshop registration*
Monday	3:00 pm – 6:00 pm for conference registration
Tuesday	9:00 am – 6:00 pm
Wednesday	9:00 am – 6:00 pm
Thursday	9:00 am – 4:30 pm
Friday	9:00 am – 6:00 pm
Saturday	9:00 am – 6:00 pm

People who have reserved both the workshops and conference will be allowed to make a complete registration.

How to reach Roma

BY AIR

"Leonardo da Vinci" intercontinental airport, located in Fiumicino, is Europe's fourth largest in terms of number of passengers and provides travellers with the most modern services and facilities. The centre of Roma can be easily reached from the airport by bus, train or taxi.

Trains from the airport:

- "Leonardo Express": Leonardo da Vinci Airport – Roma Termini (Central) Railway Station
  Duration: 32 minutes.
  Non-stop trains leave every 30 minutes.
  Ticket cost: 9.30 EUR/18,000 ITL
- Leonardo da Vinci Airport – Roma Tiburtina Railway Station
  Duration: 40 minutes.
  Trains leave every 15 minutes making stops in different areas of the city.
  Ticket cost: 4.65 EUR/9,000 ITL

Taxis and limousines are available at the international arrivals area. Approximate price: 38.74 EUR/75,000 ITL.

BY TRAIN

Roma is at the heart of the Italian railway network. Excellent Intercity service from Termini Railway Station links Roma to every major city in Europe.

BY ROAD

Italy has 6,400 km of modern motorways, which reach all regions of the country. Roma can easily be reached by car from the "Autostrada del Sole – A1", the longest Italian motorway running along the peninsula from north to south.

Transportation within the city

Numerous bus lines connect all areas of the city, including the area of the congress. The underground has two lines, Linea "A" and Linea "B". These intersect at Termini. Tickets are valid for 75 minutes of travel and can be used for one underground journey and unlimited bus travel. They can be purchased at tobacco shops ("Tabacchi"), bars and news stands. One-day tickets are also available.

Cost:

- Ticket valid for 75 minutes: 0.75 EUR/1,500 ITL
- Ticket valid for one day: 3.10 EUR/6,000 ITL

How to reach Pontificia Università Urbaniana

The connection to and from the Pontificia Università Urbaniana is assured by a shuttle service to and from every Hotel of the conference. In addition, public transport can be utilised:

- By underground:
  - Underground Linea "A" – stop Ottaviano/San Pietro;
- By bus:
  - n° 64 from Termini Railway Station to St. Peter's Square (Piazza San Pietro);
  - n° 870 from Principe Amedeo d'Aosta bridge directly to the official entrance of the conference venue.

Visas

Visas are not required for visitors from most of Europe, the US, Japan and South America. For all other countries, visas are issued on a reciprocal basis. However, it is advisable to contact the Italian Embassy or

Consulate. On request, a formal letter of invitation can be issued by the organising secretariat. This invitation does not oblige the Organising Committee to pay travel, accommodation or any other expenses incurred by the delegate.

Currency

The official currency in Italy is the Italian Lira. Approximative Exchange rate: 1936.27 Lire (ITL) = 1.00 Euros (EUR)

Banks and exchange

Banks are open from Monday to Friday, from 8:30 am to 1:30 pm and from 3:00 to 4:00 pm. On Saturdays and Sundays money can be changed at the main railway station (Termini), at the airport and in the exchange desks located in the city. Most hotels, restaurants and shops accept foreign currency and major credit cards. ATMs are located throughout the city.

Shopping

The streets of the historic centre of Roma – the famous Spanish Steps, Via Condotti, Via Frattina, Via della Croce, Via Borgognona and, of course, Via Veneto – boast the workshops of Italy's foremost and world renowned fashion creators along with glamorous shops, all bearing the unmistakable mark "Made in Italy". Via Margutta and Via del Babuino abound with privately owned artists' studios and restoration workshops. Galleries can be found almost everywhere along the side streets, like Via dei Coronari, one of the most picturesque streets in Roma, which also hosts numerous antique dealers. Shops are open from 9:00 am to 1:00 pm and from 3:30 to 7:30 pm. Most shops are closed on Sundays and Monday mornings.

Climate

September is generally warm and sunny in Roma. Temperatures may reach 25°C (77°F) during the day but are cooler in the evening.

Electricity

The electricity supply is 220 volts; 50 Hz. Foreign appliances may require an adapter.

Tips

Service is included in the bill in bars and restaurants, but tips are welcome.

Alitalia Offices

ARGENTINA
Buenos Aires
Tel. (0054) (011) 4310.9999   Fax (0054)
(011) 4310.9990

AUSTRALIA
Sydney
Tel. (0061) (02) 92442446   Fax (0061) (02)
92623925
Tel. (0061) (02) 92442400   Fax (0061) (02)
92903306

AUSTRIA
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Tel. (0043) (01) 5057615   Fax   (0043)
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BELGIUM
Brussels
Tel. (0032)(02) 5511144   Fax (0032) (02)
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41012670
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6773373

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5240894

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(05) 5251780

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2426970

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(020) 6756286

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3520680

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4158379
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2473649
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4483767
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6493323
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Tel. (001) (305) 3771401   Fax (001) (305)
3712629
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Tel. (001) (212) 9033300   Fax (001) (212)
9033350

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7995165

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Tel. (0090)(0212) 2313397/5   Fax (0090) (0212)
2306304

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Tel. (0058) (02) 2853332   Fax (0058) (02)
2833109

VLDB Disclaimer

We are making every effort in the organisation of VLDB2001 to make it an enlightening and enjoyable experience for participants. However, neither the VLDB Endowment nor the local organisers can take responsibility for any damage, loss or inconvenience participants might incur in connection with the conference. In addition, the organisers can not be held responsible for the correctness or appropriateness of the talks and papers included in this conference.

In particular, changes to the published conference program or cancellations of parts thereof do not entitle participants to a full or partial refund of the conference fee.

Names/addresses of attendees will be processed electronically and included in a list of participants that may be posted/distributed during and in connection with the conference. By registering for the conference, participants express their agreement with these regulations.

The information supplied will be used by the conference organization for the purposes of conference registration and administration. In addition, under control of the VLDB Endowment Board, the information may be made available for purposes beneficial to the community such as informing attendees of relevant related publications, events, or items of interest to the community.

CONFERENCE OFFICERS

General Chairperson

Paolo Atzeni (atzeni@dia.uniroma3.it) – Università Roma Tre, Italy

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Alistair Moffat, U Melbourne, Australia
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Nandlal L. Sarda, IIT, India
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S. Sudarshan, IIT, India
Justin Zobel, RMIT U, Australia

RELATED EVENTS

VLDB Workshops held at the VLDB'2001 venue

Databases in Telecommunications (DBTel)
      September 10, 2001
Technologies for E-Services (TES)
      September 14 and 15, 2001
Knowledge Representation meets Data Bases (KRDB)
      September 15, 2001

Related Workshops and Conferences

Sixth International Conference on Cooperative Information Systems (CoopIS 2001)
      Trento, September 5-7, 2001
2001 IEEE Symposium on Human-Centric Computing Languages and Environments
      Stresa (near Milan), September 6-8, 2001
Fifth International Workshop on Cooperative Information Agents (CIA 2001)
      Modena, September 6-8, 2001
Database Programming Languages (DBPL 2001)
      Marino (near Roma), September 8-10, 2001
Workshop on Open Enterprise Solutions: Systems, Experiences, and Organizations
      Roma, September 14-15, 2001
International Workshop on Foundations of Models for Information Integration (FMII 2001)
      Viterbo (near Roma), 16-18 September, 2001
The 3nd International Symposium on Distributed Objects & Applications (DOA 2001)
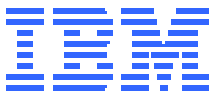   Roma, 18-20 September, 2001

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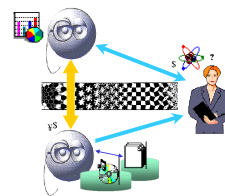

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Conference Programme

Monday 10th September	13:00-18:00	Conference Registration at the Pontificia Università Urbaniana
	18:00-21:00	Welcome Reception at Palazzo Caffarelli

		Aula Magna	Aula Michelangelo	Auditorium	Aula Raffaello
Tuesday 11th September	09:00-09:30	Opening Session (Aula Magna)			
	09:30-10:30	Keynote Talk (Aula Magna): Egbert-Jan Sol (Ericsson/Corporate Technology) "Ambience Intelligence with the Ubiquitous Network, the Embedded Computer Devices and the Hidden Databases"			
	10:30-11:00	Coffee break			
	11:00-12:30	Tutorial T1: Storage and Retrieval of XML Data using Relational DB	Research Session R1: Query Optimization	Research Session R2: Reasoning on Data Semantics	Industrial Session I1: Data Intensive Solutions
	12:30-14:30	Lunch			
	14:30-16:00	Tutorial T2: Data Management for Pervasive Computing (First part)	Research Session R3: Quantitative Queries	Research Session R4: Data Extraction from the Web	Research Session R5: New Applications
	16:00-16:30	Coffee break			
	16:30-18:00	Tutorial T2: Data Management for Pervasive Computing (Second part)	Research Session R6: Caching Techniques	Panel (Auditorium): Collaborative Analytical Processing – Dream or Reality?	
	20:30-23:00	Concert at the Caracalla Baths			

		Aula Magna	Aula Michelangelo	Auditorium	Aula Raffaello
Wednesday 12th September	09:00-11:00	Tutorial T3: Caching Technologies for Web Applications	Research Session R7: Similarity Queries	Research Session R8: XML Queries & Views	Application Session A1: E-Government
	11:00-11:30	Coffee break			
	11:30-12:30	Keynote Talk (Aula Magna): Philip Wadler (Avaya Labs) "Et tu, XML? The Downfall of the Relational Empire"			
	12:30-13:00	Keynote talk (Aula Magna): Pierre-Paul Sondag (European Commission, DG Information Society) "The Semantic Web Paving the Way to the Knowledge Society"			
	13:00-15:00	Lunch			
	15:00-16:30	Tutorial T4: Approximate Query Processing: Taming the Terabytes	Research Session R9: Efficient Query Execution I	Research Session R10: Data Mining	Industrial Session I2: E-Commerce Enabling Solutions
	16:30-17:00	Coffee break			
	17:00-18:30	Plenary Panel (Aula Magna): Are Web-Services the Next Revolution in E-Commerce?			
	18:30-21:00	McGraw-Hill Presentation with Cocktail Party (Aula Magna): Primisonline and Power Web Tools			

		Aula Magna	Aula Michelangelo	Auditorium	Aula Raffaello
Thursday 13th September	09:00-10:30	Tutorial T5: Information Management for Genome Level Bioinformatics (First part)	Research Session R11: New Index Structures	Research Session R12: Data Quality & Cleaning	Industrial Session I3: Systems and Architectures
	10:30-11:00	Coffee break			
	11:00-12:30	Tutorial T5: Information Management for Genome Level Bioinformatics (Second part)	Research Session R13: Spatial Data	Panel (Auditorium): Storage Service Providers: a Solution for Storage Management?	
	12:30-14:15	Lunch			
	14:15-15:15	Research Session R14: Temporal Data	Research Session R15: DBMS Architectures	Research Session R16: Data Warehouses	Application Session A2: E-Services
	15:15-16:15	Ten Years Award Talk (Aula Magna): Umeshwar Dayal, Meichun Hsu, and Rivka Ladin "Business Process Coordination: State of the Art, Trends, and Open Issues"			
	16:30-24:00	Excursion, Show and Banquet at the Odescalchi's Castle of Bracciano			

		Aula magna	Aula Michelangelo	Auditorium	Aula Raffaello
Friday 14th September	09:00-10:30	Tutorial T6: Managing Business Processes via Workflow Technology (First part)	Research Session R17: Efficient Query Execution II	Research Session R18: OLAP Queries	
	10:30-11:00	Coffee break			
	11:00-12:30	Tutorial T6: Managing Business Processes via Workflow Technology (Second part)	Research Session R19: Distributed Data	Research Session R20: XML Processing	Application Session A3: Data Analysis & Mining
	12:30-12:45	Closing Session (Aula Magna)			