



SIGMOD / PODS 2003 Final Program

San Diego, California

June 8-13, 2003

Sunday, June 8th

8:30-17:30

DEBS Workshop (Windsor)
PKC50 Workshop (Hampton)
MPDS Workshop (Sheffield)

19:30-21:30

SIGMOD / PODS Welcoming Reception
(Garden Salon 1)

Monday, June 9th

8:00-8:45

Continental Breakfast (Atlas Foyer)

8:45-10:00

PODS Session 1: Invited Talk
(Hampton & Sheffield)
Chair: Tova Milo

E-services: A Look Behind the Curtain, *Rick Hull*

10:00-10:15

Morning Coffee Break (Atlas Foyer)

10:15-11:15

PODS Session 2: Award Papers
(Hampton & Sheffield)
Chair: Catriel Beeri

Best Paper: An Information-Theoretic Approach to Normal Forms for Relational and XML Data, *Marcelo Arenas, Leonid Libkin*

Best Newcomer Paper: Algorithms for Data Migration with Cloning, *Samir Khuller, Yoo-Ah Kim, Yung-Chun (Justin) Wan*

11:15-11:30

Break

11:30-12:30

FCRC Plenary (Grand Ballroom)

Provably Unbreakable Encryption: Theory and Implementation, *Michael Rabin* (Harvard University)

12:30-14:00

Lunch (Royal Palm Court)

14:00-15:30

PODS Session 3: Invited Tutorial
(Hampton & Sheffield)
Chair: Surajit Chaudhuri

Privacy in Data Systems, *Rakesh Agrawal*

15:30-16:00

Afternoon Coffee Break (Atlas Foyer)

16:00-18:00

PODS Session 4: Views
(Hampton & Sheffield)
Chair: Marie-Christine Rousset

Materializing Views with Minimal Size to

Answer Queries, *Rada Chirkova, Chen Li*

The Impact of the Constant Complement Approach Towards View Updating, *Jens Lechtenboerger*

View-Based Query Containment, *Diego Calvanese, Giuseppe De Giacomo, Maurizio Lenzerini, Moshe Y. Vardi*

The View Selection Problem for XML Content Based Routing, *Ashish Kumar Gupta, Alon Y. Halevy, Dan Suciu*

19:00-22:00

SIGMOD New DB Faculty Symposium
(Windsor & Sheffield)

21:00-23:00

PODS Business Meeting
(Garden Salon 1)

Tuesday, June 10th

8:00-8:45

Continental Breakfast (Atlas Foyer)

8:45-9:45

SIGMOD Keynote (Regency Ballroom)
Chair: Alon Halevy

The Database Course Qua Poster Child For More Efficient Education, *Jeffrey D. Ullman* (Stanford University)

9:45-10:15

Morning Coffee Break (Atlas Foyer)

10:15-11:15

PODS Session 5: Data Integration
(Garden Salon 2)
Chair: Foto Afrati

Computing Full Disjunctions, *Yaron Kanza, Yehoshua Sagiv*

Data Exchange: Getting to the Core, *Ronald Fagin, Phokion G. Kolaitis, Lucian Popa*

SIGMOD Research Session 1: XML and Text (Windsor)
Chair: Divesh Srivastava

Querying Structured Text in an XML Database, *Shurug Al-Khalifa, Cong Yu, H. V. Jagadish*

XRANK: Ranked Keyword Search over XML Documents, *Lin Guo, Feng Shao, Chavdar Botev, Jayavel Shanmugasundaram*

SIGMOD Research Session 2: Stream Query Processing I (Hampton)
Chair: Minos Garofalakis

Distributed Top-K Monitoring, *Brian Babcock, Chris Olston*

Approximate Join Processing Over Data

Streams, *Abhinandan Das, Johannes Gehrke, Mirek Riedewald*

SIGMOD Research Session 3: OLAP
(Garden Salon 1)
Chair: Latha Colby

Best Paper: Spreadsheets in RDBMS for OLAP, *Abhinav Gupta, Andy Witkowski, Gregory Dorman, Srikanth Bellamkonda, Tolga Bozkaya, Nathan Folkert, Lei Sheng, Sankar Subramanian*

QC-Trees: An Efficient Summary Structure for Semantic OLAP, *Laks Lakshmanan, Jian Pei, Yan Zhao*

SIGMOD Industrial Session 1: Web Services (Sheffield)
Chair: Surajit Chaudhuri

The Future of Web Services - I, *Adam Bosworth* (BEA Systems)

The Future of Web Services - II, *Felipe Cabrera* (Microsoft)

SIGMOD Demos: Group A (Crescent)

A System for Watermarking Relational Databases, *Rakesh Agrawal, Jerry Kiernan*

Query by Humming - in Action with its Technology Revealed, *Yunyue Zhu, Dennis Shasha*

PeerDB: Peering into Personal Databases, *Beng Chin Ooi, Kian-Lee Tan, Aoying Zhou, Chin Hong Goh, Yingguang Li, Chu Yee Liao, Bo Ling, Wee Siong Ng, Yanfeng Shu, Xiaoyu Wang, Ming Zhang*

GridDB: A Database Interface to the Grid, *David T. Liu, Michael J. Franklin*

CMVF: A Novel Dimension Reduction Scheme for Efficient Indexing in A Large Image Database, *Jialie Shen, Anne H.H. Ng, John Shepherd, Du Q. Huynh, Quan Z. Sheng*

PLASTIC: Reducing the Cost of Query Optimization through Query Clustering, *Vibhuti S. Sengar, Jayant R. Haritsa*

BIRN-M: A Semantic Mediator for Solving Real-World Neuroscience Problems, *Amarnath Gupta, Bertram Ludascher, Maryann E. Martone, Arcot Rajasekar, Edward Ross, Xufei Qian, Simone Santini, Haiyun He, Ilya Zaslavsky*

11:15-11:30

Break

11:30-12:30

FCRC Plenary (Grand Ballroom)

Computer Architecture and Technology: Some Thoughts on the Road Ahead,

Michael Flynn (Stanford University)

12:30-14:00

Lunch (Royal Palm Court)

14:00-15:30

PODS Session 6: Optimization

(Garden Salon 2)

Chair: Victor Vianu

Soft Stratification for Magic Set Based Query Evaluation in Deductive Databases, *Andreas Behrend*

Query Containment and Rewriting Using Views for Regular Path Queries under Constraints, *Gosta Grahne, Alex Thomo*

Concise Descriptions of Subsets of Structured Sets, *Alberto O. Mendelzon, Ken Q. Pu*

On Producing Join Results Early, *Jens-Peter Dittrich, Bernhard Seeger, David Scot Taylor, Peter Widmayer*

SIGMOD Research Session 4: Data Security and Protection (Hampton)

Chair: Sharad Mehrotra

Winnowing: Local Algorithms for Document Fingerprinting, *Saul Schleimer, Daniel Wilkerson, Alex Aiken*

Information Sharing Across Private Databases, *Rakesh Agrawal, Alexandre Evfimievski, Ramakrishnan Srikant*

Rights Protection for Relational Data, *Radu Sion, Mikhail Atallah, Sunil Prabhakar*

SIGMOD Research Session 5: XML Indexing and Compression (Windsor)

Chair: Hank Korth

ViST: A Dynamic Index Method for Querying XML Data by Tree Structures, *Haixun Wang, Sanghyun Park, Wei Fan, Philip Yu*

XPRESS: A Queriable Compression for XML Data, *Jun-Ki Min, Myung-Jae Park, Chin-Wan Chung*

D(k)-Index: An Adaptive Structural Summary for Graph-Structured Data, *Qun Chen, Andrew Lim, Kian Win Ong*

SIGMOD Industrial Session 2: Server Technology (Sheffield)

Chair: James Hamilton

Oracle RAC: Architecture and Performance, *Angelo Pruscino* (Oracle)

Oracle XML DB Repository, *Viswanathan Krishnamurthy* (Oracle)

Multi-Dimensional Clustering: A New Data Layout Scheme in DB2, *Sriram Padmanabhan, Bishwaranjan Bhattacharjee, Timothy Malkemus, Leslie Cranston, Matthew Huras* (IBM)

SIGMOD Panel 1: Querying Network

Databases (Garden Salon 1)

Moderators: *Nick Koudas, Divesh Srivastava*

Panelists: *Daniela Florescu, Hector Garcia-Molina, Tim Griffin, Alon Halevy, Tomasz Imielinski, Prabhakar Raghavan*

SIGMOD Demos: Group B (Crescent)

STREAM: The Stanford Stream Data Manager, *Arvind Arasu, Brian Babcock, Shivnath Babu, Mayur Datar, Keith Ito, Justin Rosenstein, and Jennifer Widom*

Aurora: A Data Stream Management System, *D. Abadi, D. Carney, U. Cetintemel, M. Cherniack, C. Convey, C. Erwin, E. Galvez, M. Hatoun, A. Maskey, A. Rasin, A. Singer, M. Stonebraker, N. Tatbul, Y. Xing, R. Yan, S. Zdonik*

IrisNet: Internet-scale Resource-Intensive Sensor Services, *Amol Deshpande, Suman Nath, Phillip B. Gibbons, Srinivasan Seshan*

TelegraphCQ: Continuous Dataflow Processing, *The TelegraphCQ Team*

Transparent Mid-Tier Database Caching in SQL Server, *Per-Åke Larson, Jonathan Goldstein*

DBCACHE: Middle-tier Database Caching for Highly Scalable e-Business Architectures, *Mehmet Altinel, Christof Bornhövd, Suresh Krishnamurthy, C. Mohan, Hamid Pirahesh, Berthold Reinwald*

IPSOFACTO: A Visual Correlation Tool for Aggregate Network Traffic Data, *Flip Korn, S. Muthukrishnan, Yunyue Zhu*

SOCQET: Semantic OLAP with Compressed Cube and Summarization, *Laks V.S. Lakshmanan, Jian Pei, Yan Zhao*

15:30-16:00

Afternoon Coffee Break (Atlas Foyer)

16:00-18:00

PODS Session 7: XML (Garden Salon 2)

Chair: Gerhard Weikum

Correlating XML Data Streams Using Tree-Edit Distance Embeddings, *Minos Garofalakis, Amit Kumar*

Numerical Document Queries, *Anca Muscholl, Thomas Schwentick, Helmut Seidl*

Typing and Querying XML Documents: Some Complexity Bounds, *Luc Segoufin*

The Complexity of XPath Query Evaluation, *Georg Gottlob, Christoph Koch, Reinhard Pichler*

SIGMOD Research Session 6: Join Algorithms (Hampton **16:00-17:00**)

Chair: Alfons Kemper

Containment Join Size Estimation: Models and Methods, *Wei Wang, Haifeng Jiang,*

Hongjun Lu, Jeffrey Xu Yu

Efficient Processing of Joins on Set-valued Attributes, *Nikos Mamoulis*

SIGMOD Research Session 7: Temporal Queries

(Hampton **17:00-18:00**)

Chair: John Cho

Temporal Coalescing with Now, Granularity, and Incomplete Information, *Curtis Dyreson*

Query by Humming: a Time Series Database Approach, *Yunyue Zhu, Dennis Shasha*

SIGMOD Research Session 8: Meta-Data Management

(Windsor **16:00-17:30**)

Chair: Zack Ives

Rondo: A Programming Platform for Generic Model Management, *Sergey Melnik, Erhard Rahm, Phil Bernstein*

On Schema Matching with Opaque Column Names and Data Values, *Jaewoo Kang, Jeffrey Naughton*

Statistical Schema Integration across the Deep Web, *Bin He, Kevin Chen-Chuan Chang*

SIGMOD Research Session 9: Statistics (Sheffield **16:00-17:00**)

Chair: Phil Gibbons

Extended Wavelets for Multiple Measures, *Antonios Deligiannakis, Nick Roussopoulos*

Spectral Bloom Filters, *Saar Cohen, Yossi Matias*

SIGMOD Industrial Session 3: Database Applications

(Sheffield **17:00-18:00**)

Chair: Michael Carey

Integration of Electronic Tickets and Personal Guide System for Public Transport using Mobile Terminals, *Koichi Goto (TRI), Yuhiko Kambayashi* (Kyoto University)

Gigascope: A Stream Database for Network Applications, *Theodore Johnson (AT&T), Chuck Cranor (AT&T), Oliver Spatscheck (AT&T), Vladislav Shkapenyuk (CMU)*

SIGMOD Tutorial 1 (Garden Salon 1)

Data Quality and Data Cleaning: An Overview, *Theodore Johnson, Tamraparni Dasu* (AT&T Labs Research)

SIGMOD Demos: Group C (Crescent)

QXtract: A Building Block for Efficient Information Extraction from Plain-Text Databases, *Eugene Agichtein, Luis Gravano*

PIX: Exact and Approximate Phrase

Matching in XML, *Siheem Amer-Yahia, Mary Fernandez, Divesh Srivastava, Yu Xu*

LockX: A System for Efficiently Querying Secure XML, *SungRan Cho, Siheem Amer-Yahia, Laks V.S. Lakshmanan, Divesh Srivastava*

TREX: DTD-Conforming XML to XML Transformations, *Aoying Zhou, Qing Wang, Zhimao Guo, Xueqing Gong, Shihui Zheng, Hongwei Wu, Jianchang Xiao, Kun Yue, Wenfei Fan*

Rainbow: Multi-XQuery Optimization Using Materialized XML Views, *Xin Zhang, Bradford Pielech, Luping Ding, Brian Murphy, Ling Wang, Katica Dimitrova, Maged El Sayed, Elke A. Rundensteiner*

TIMBER: A Native System for Querying XML, *Stelios Paparizos, Shurug Al-Khalifa, Adriane Chapman, H. V. Jagadish, Laks V. S. Lakshmanan, Andrew Nierman, Jignesh M. Patel, Divesh Srivastava, Nuwee Wiwatwattana, Yuqing Wu, Cong Yu*

ROLEX: Relational On-Line Exchange with XML, *Philip Bohannon, Xin (Luna) Dong, Sumit Ganguly, Henry F. Korth, Chengkai Li, P.P.S. Narayan, Pradeep Shenoy*

19:30-21:30

SIGMOD / PODS Reception

(Terrace Salon 1-3)

Sponsored by:

San Diego Supercomputer Center

Wednesday, June 11th

8:00-8:45

Continental Breakfast (Atlas Foyer)

8:45-9:45

PODS Session 8: Security and Privacy

(Garden Salon 2 **8:45-10:00**)

Chair: Dan Suciu

Query-preserving Watermarking of Relational Databases and XML Documents, *David Gross-Amblard*

Revealing Information while Preserving Privacy, *Irit Dinur, Kobbi Nissim*

Limiting Privacy Breaches in Privacy Preserving Data Mining, *Alexandre Evfimievski, Johannes Gehrke, Ramakrishnan Srikant*

SIGMOD Research Session 10: Stream Query Processing II

(Sheffield)

Chair: Yossi Matias

Chain: Operator Scheduling for Memory Minimization in Data Stream Systems, *Brian Babcock, Shivnath Babu, Mayur Datar, Rajeev Motwani*

Processing Set Expressions over Continuous Update Streams, *Sumit Ganguly, Minos Garofalakis, Rajeev Rastogi*

SIGMOD Research Session 11: Data Integration and Sharing I

(Windsor)

Chair: Mariano Consens

Capturing both Types and Constraints in Data Integration, *Wenfei Fan, Michael Benedikt, Chee-Yong Chan, Juliana Freire, Rajeev Rastogi*

Exchanging Intensional XML Data, *Tova Milo, Serge Abiteboul, Bernd Amann, Omar Benjelloun, Frederic Dang Ngoc*

SIGMOD Research Session 12:

Similarity Queries I

(Hampton)

Chair: Hans-Peter Kriegel

Efficient Similarity Search and Classification via Rank Aggregation, *Ronald Fagin, Ravi Kumar, D Sivakumar*

Robust and Efficient Fuzzy Match for Online Data Cleaning, *Surajit Chaudhuri, Kris Ganjam, Venkatesh Ganti, Rajeev Motwani*

SIGMOD Tutorial 2 (Part 1)

(Garden Salon 1)

XQuery: A Query Language for XML, *Don Chamberlin* (IBM Almaden Research Center)

SIGMOD Demos: Group C

(Crescent)

See Monday's Listing

9:45-10:15

Morning Coffee Break (Atlas Foyer)

10:15-11:15

SIGMOD Awards and Business Meeting

(Regency Ballroom)

11:15-11:30

Break

11:30-12:30

FCRC Plenary

(Grand Ballroom)

Issues in Peer-to-Peer Computing, *Barbara Liskov* (M.I.T.)

12:30-14:00

Lunch (Royal Palm Court)

14:00-15:30

PODS Session 9: Streams and Indexing

(Garden Salon 2)

Chair: Nick Koudas

Maintaining Time-Decaying Stream Aggregates, *Edith Cohen, Martin Strauss*

Maintaining Variance and k--Medians over Data Stream Windows, *Brian Babcock, Mayur Datar, Rajeev Motwani, Liadan O'Callaghan*

Optimal Indexing Using Near-Minimal Space, *C. Heeren, H. V. Jagadish, L. Pitt*

On Nearest Neighbor Indexing of Non-Linear Trajectories, *Charu Aggarwal, Dakshi Agrawal*

SIGMOD Research Session 13: Data Integration and Sharing II

(Windsor)

Chair: Phil Bernstein

Mapping Data in Peer-to-Peer Systems: Semantics and Algorithmic Issues, *Anastasios Kementsietsidis, Marcelo Arenas, Renée J Miller*

Extracting Structured Data from Web Pages, *Arvind Arasu, Hector Garcia-Molina*

Scientific Data Repositories: Designing for a Moving Target, *Etzard Stolte, Gustavo Alonso, Christoph Praun, Thomas Gross*

SIGMOD Research Session 14: Query Processing

(Hampton)

Chair: Ken Ross

Factorizing Complex Predicates in Queries to Exploit Indexes, *Surajit Chaudhuri, Prasanna Ganesan, Sunita Sarawagi*

Estimating Compilation Time of a Query Optimizer, *Ihab Ilyas, Jun Rao, Guy Lohman, Dengfeng Gao, Eileen Lin*

A Characterization of the Sensitivity of Query Optimization to Storage Access Cost Parameters, *Frederick Reiss, Tapas Kanungo*

SIGMOD Industrial Session 4: Information Retrieval & Data Visualization

(Sheffield)

Chair: Luis Gravano

Google in a Box - Building the Google Search Appliance, *Narayanan Shivakumar* (Google)

Extracting and Exploiting Structure in Text Search, *Prabhakar Raghavan* (Verity)

Visionary: A Next Generation Visualization System for Databases, *Michael Stonebraker* (MIT and Rocket Software)

SIGMOD Tutorial 2 (Part 2)

(Garden Salon 1)

XQuery: A Query Language for XML, *Don Chamberlin* (IBM Almaden Research Center)

SIGMOD Demos: Group B

(Crescent)

See Monday's Listing

15:30-16:00

Afternoon Coffee Break (Atlas Foyer)

16:00-18:00

PODS Session 10: Integration and Mining

(Garden Salon 2)

Chair: Jan Van Den Bussche

On the Decidability and Complexity of Query Answering over Inconsistent and Incomplete Databases, *Andrea Cali, Domenico Lembo, Riccardo Rosati*

How to Quickly Find a Witness, *Daniel Kifer, Johannes Gehrke, Cristian Bucila, Walker White*

Feasible Itemset Distributions in Data Mining: Theory and Application, *Ganesh Ramesh, William A. Maniatty, Mohammed J. Zaki*

What's Hot and What's Not: Tracking Most Frequent Items Dynamically, *Graham Cormode, S. Muthukrishnan*

SIGMOD Research Session 15: Formal Foundations (Windsor **16:00-17:00**)
Chair: Wenfei Fan

A Theory of Redo Recovery, *David Lomet, Mark Tuttle*

Formal Semantics and Analysis of Object Queries, *Gavin Bierman*

SIGMOD Research Session 16: Streaming XML (Windsor **17:00-18:00**)
Chair: Frank Tompa

Stream Processing of XPath Queries with Predicates, *Ashish Gupta, Dan Suciu*

XPath Queries on Streaming Data, *Feng Peng, Sudarshan Chawathe*

SIGMOD Research Session 17: Spatial and Nearest Neighbor Queries (Hampton)
Chair: Bongki Moon

Location-based Spatial Queries, *Dimitris Papadias, Jun Zhang, Manli Zhu, Yufei Tao, Dik Lee*

Hardware Acceleration for Spatial Selections and Joins, *Chengyu Sun, Divyakant Agrawal, Amr El Abbadi*

An Optimal and Progressive Algorithm for Skyline Queries, *Dimitris Papadias, Yufei Tao, Greg Fu, Bernhard Seeger*

Contorting High Dimensional Data for Efficient Main Memory Processing, *Bin Cui, Beng Chin Ooi, Kian-Lee Tan, Jianwen Su*

SIGMOD Panel 2: Report on the Fourth "Where Should We Be Going" Meeting (Sheffield)

Moderators: *Michael Stonebraker, Jim Gray, Hans Schek, Jeff Ullman*

SIGMOD Demos: Group A (Crescent)

See Monday's Listing

19:00-23:00

SIGMOD/PODS Banquet
(Town & Country)

Thursday, June 12th

8:00-8:45

Continental Breakfast (Atlas Foyer)

8:45-9:45

SIGMOD Research Session 18: Sensor Databases (Windsor)
Chair: Guy Lohman

The Design of an Acquisitional Query Processor For Sensor Networks, *Samuel Madden, Michael Franklin, Joseph Hellerstein, Wei Hong*

Cache-and-Query for Wide Area Sensor Databases, *Amol Deshpande, Suman Nath, Phillip Gibbons, Srinivasan Seshan*

SIGMOD Research Session 19: XML Query Processing I (Hampton)
Chair: Jignesh Patel

Composing XSL Transformations with XML Publishing Views, *Chengkai Li, Philip Bohannon, Hank Korth, PPS Narayan*

Dynamic XML Documents with Distribution and Replication, *Serge Abiteboul, Angela Bonifati, Gregory Cobena, Ioana Manolescu, Tova Milo*

SIGMOD Research Session 20: Approximate Querying (Garden Salon 1)
Chair: Jiawei Han

Dynamic Sample Selection for Approximate Query Processing, *Brian Babcock, Surajit Chaudhuri, Gautam Das*

Evaluating Probabilistic Queries over Imprecise Data, *Reynold Cheng, Dmitri V. Kalashnikov, Sunil Prabhakar*

SIGMOD Industrial Session 5: Subscription Services (Sheffield)
Chair: Raghu Ramakrishnan

Building Notification Services with Microsoft SQLServer, *Praveen Seshadri* (Microsoft)

NonStop SQL/MX Publish/Subscribe: Continuous Data Streams in Transaction Processing, *Hansjorg Zeller* (Hewlett Packard)

SIGMOD Demos: Potpourri (Crescent)

See Monday's Listing

9:45-10:15

Morning Coffee Break (Atlas Foyer)

10:15-11:15

SIGMOD Research Session 21: Monitoring Data Streams (Hampton)
Chair: Anastassia Ailamaki

Adaptive Filters for Continuous Queries over Distributed Data Streams, *Chris Olston, Jing Jiang, Jennifer Widom*

A Framework for Change Diagnosis of Data Streams, *Charu Aggarwal*

SIGMOD Research Session 22: Similarity Queries II (Windsor)
Chair: Jonathan Goldstein

Using Sets of Feature Vectors for Similarity Search on Voxalized CAD Objects, *Hans Peter Kriegel, Peer Kröger, Martin Pfeifle, Matthias Schubert, Stefan Brecheisen*

Qcluster: Relevance Feedback Using Adaptive Clustering for Content-Based Image Retrieval, *Deok-Hwan Kim, Chin-Wan Chung*

SIGMOD Research Session 23: XML Query Processing II (Garden Salon 2)
Chair: Jai Shanmugasundaram

On Relational Support for XML Publishing: Beyond Sorting and Tagging, *Surajit Chaudhuri, Raghav Kaushik, Jeffrey Naughton*

A Comprehensive XQuery to SQL Translation using Dynamic Interval Encoding, *David DeHaan, David Toman, Mariano Consens, M. Tamer Ozsu*

SIGMOD Industrial Session 6: CRM and Query Optimization (Sheffield)
Chair: Michael Stonebraker

Data Management Challenges in CRM, *George Colliat* (Siebel Systems)

WinMagic: Subquery Elimination Using Window Aggregation, *Calisto Zuzarte, Wenbin Ma, Hamid Pirahesh, Qi Cheng, Linqi Liu, Kwai Wong* (IBM)

SIGMOD Demos: Potpourri (Crescent)

See Monday's Listing

11:15-11:30

End Of SIGMOD

11:30-12:30

FCRC Plenary (Town & Country)

Building a Web Warehouse, *Hector Garcia-Molina* (Stanford University)

14:00-18:00

WebDB Workshop (Windsor)

Friday, June 13th

8:30-15:30

WebDB Workshop (Windsor)

8:30-17:30

DMKD Workshop (Sheffield)

Acknowledgments

The SIGMOD/PODS 2003 Conference gratefully acknowledges the contributions of the following institutions.

Sponsors



Contributors

