

Encyclopedia of Database Systems

Ling Liu, M. Tamer Özsu (Eds.)

Encyclopedia of Database Systems

With 3,067 Entries

With 871 Authors

With 1,176 Figures and 101 Tables

With 6,900 Cross-references

With 10,696 Bibliographic references

LING LIU
Professor
College of Computing
Georgia Institute of Technology
266 Ferst Drive
Atlanta, GA 30332-0765
USA

M. TAMER ÖZSU
Professor and Director, University Research Chair
Database Research Group
David R. Cheriton School of Computer Science
University of Waterloo
200 University Avenue West
Waterloo, ON
Canada N2L 3G1

Library of Congress Control Number: 2009931217

ISBN: 978-0-387-35544-3

This publication is available also as:
Electronic publication under ISBN: 978-0-387-39940-9 and
Print and electronic bundle under ISBN: 978-0-387-49616-0

© Springer Science+Business Media, LLC 2009 (USA)

All rights reserved. This work may not be translated or copied in whole or in part without the written permission of the publisher (Springer Science+Business Media, LLC., 233 Spring Street, New York, NY 10013, USA), except for brief excerpts in connection with reviews or scholarly analysis. Use in connection with any form of information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed is forbidden. The use in this publication of trade names, trademarks, service marks, and similar terms, even if they are not identified as such, is not to be taken as an expression of opinion as to whether or not they are subject to proprietary rights.

springer.com

Printed on acid free paper

SPIN: 11752127 2109SPi- 5 4 3 2 1 0

To our families

Preface

We are in an information era where generating and storing large amounts of data are commonplace. A growing number of organizations routinely handle terabytes and exabytes of data, and individual digital data collections easily reach multiple gigabytes. Along with the increases in volume, the modality of digitized data that requires efficient management and the access modes to these data have become more varied. It is increasingly common for business and personal data collections to include images, video, voice, and unstructured text; the retrieval of these data comprises various forms, including structured queries, keyword search, and visual access. Data have become a highly valued asset for governments, industries and individuals, and the management of these data collections remains a critical technical challenge.

Database technology has matured over the past four decades and is now quite ubiquitous in many applications that deal with more traditional business data. The challenges of expanding data management to include other data modalities while maintaining the fundamental tenets of database management (data independence, data integrity, data consistency, etc.) are issues that the community continues to work on. The lines between database management and other fields such as information retrieval, multimedia retrieval, and data visualization are increasingly blurred.

This multi-volume *Encyclopedia of Database Systems* provides easy access to important concepts on all aspects of database systems, including areas of current interest and research results of historical significance. It is a comprehensive collection of over 1,250 in-depth entries (3,067 including synonyms) that present coverage of the important concepts, issues, emerging technology and future trends in the field of database technologies, systems, and applications. The content of the *Encyclopedia* was determined through wide consultations. We were assisted by an Advisory Board in coming up with the overall structure and content. Each of these areas were put under the control of Area Editors (70 in total) who further developed the content for each area, soliciting experts in the field as contributors to write the entries, and performed the necessary technical editing. Some of them even wrote entries themselves. Nearly 1,000 authors were involved in writing entries.

The intended audience for the *Encyclopedia* is technically broad and diverse. It includes anyone concerned with database system technology and its applications. Specifically, the *Encyclopedia* can serve as a valuable and authoritative reference for students, researchers and practitioners who need a quick and authoritative reference to the subject of databases, data management, and database systems. We anticipate that many people will benefit from this reference work, including database specialists, software developers, scientists and engineers who need to deal with (structured, semi-structured or unstructured) large datasets. In addition, database and data mining researchers and scholars in the many areas that apply database technologies, such as artificial intelligence, software engineering, robotics and computer vision, machine learning, finance and marketing are expected to benefit from the *Encyclopedia*.

We would like to thank the members of the Advisory Board, the Editorial Board, and the individual contributors for their help in creating this *Encyclopedia*. The success of the *Encyclopedia* could not have been achieved without the expertise and the effort of the many contributors. Our sincere thanks also go to Springer's editors and staff, including Jennifer Carlson, Susan Lagerstrom-Fife, Oona Schmid, and Susan Bednarczyk for their support throughout the project.

Finally, we would very much like to hear from readers for any suggestions regarding the *Encyclopedia's* content. With a project of this size and scope, it is quite possible that we may have missed some concepts. It is also possible that some entries may benefit from revisions and clarifications. We are committed to issuing periodic updates and we look forward to the feedback from the community to improve the *Encyclopedia*.

Ling Liu
M. Tamer Özsu



Editors-in-Chief



Ling Liu is a Professor in the School of Computer Science, College of Computing, at Georgia Institute of Technology. Dr. Liu directs the research programs in Distributed Data Intensive Systems Lab (DiSL), examining various aspects of data intensive systems, ranging from database and Internet data management, data storage, network computing, and mobile and wireless computing, with the focus on performance, availability, security, privacy, and energy efficiency in building very large database and data management systems and services. She has published over 200 international journal and conference articles in the areas of databases, data engineering, and distributed computing systems. She is a recipient of the best paper award of ICDCS 2003, the best paper award of WWW 2004, the 2005 Pat Goldberg Memorial Best Paper Award, and the best data engineering paper award of Int. Conf. on Software Engineering and Data Engineering (2008). Dr. Liu served on the editorial board of *IEEE Transactions on Knowledge and Data Engineering* and *International Journal of Very Large Databases* from 2004 to 2008 and is currently serving on the editorial board of several international journals, including *Distributed and Parallel Databases Journal*, *IEEE Transactions on Service Computing* (TSC), *International Journal of Peer-to-Peer Networking and Applications* (Springer), and *Wireless Network* (Springer). Dr. Liu's current research is primarily sponsored by NSF, IBM, and Intel.



M. Tamer Özsu is a Professor of Computer Science and Director of the David R. Cheriton School of Computer Science at the University of Waterloo. He holds a Ph.D. (1983) and an MS (1981) in Computer and Information Science from The Ohio State University (1983) and a B.S. (1974) and M.S. (1978) in Industrial Engineering from the Middle East Technical University, Turkey (1974).

Dr. Özsu's current research focuses on three areas: (a) Internet-scale data distribution that emphasizes stream data management, peer-to-peer databases, and Web data management; (b) multimedia data management, concentrating on similarity-based retrieval of time series and trajectory data; and (c) the integration of database and information retrieval technologies, focusing on XML query processing and optimization. His previous research focused on distributed databases, interoperable information systems, object database systems and image databases. He is the co-author of the book *Principles of Distributed Database Systems* (Prentice Hall), which is now in its second edition (third edition to publish in 2009).

He currently holds a University Research Chair and has held a Faculty Research Fellowship at the University of Waterloo (2000-2003), and a McCalla Research Professorship (1993-1994) at the University of Alberta where he was faculty member between 1984 and 2000. He is a fellow of the Association for Computing Machinery (ACM), a senior member of Institute of Electrical and Electronics Engineers (IEEE), and a member of Sigma Xi. He was awarded the ACM SIGMOD Contributions Award in 2006. He is also the 2008 recipient of Ohio State University College of Engineering Distinguished Alumnus Award.

He has held visiting positions at GTE Laboratories (USA), INRIA Rocquencourt (France), GMD-IPSI (Germany), University of Jyväskylä (Finland), Technical University of Darmstadt (Germany), University of Udine (Italy), University of Milano (Italy), ETH Zürich (Switzerland), and National University of Singapore (Singapore).

Dr. Özsu serves on the editorial boards of *ACM Computing Surveys*, *Distributed and Parallel Databases Journal*, *World Wide Web Journal*, *Information Technology and Management*, and Springer Book Series on *Advanced Information & Knowledge Processing*. Previously he was the Coordinating Editor-in-Chief of *The VLDB Journal* (1997-2005) and was on the Editorial Board of *Encyclopedia of Database Technology and Applications* (Idea Group). He has served as the Program Chair of VLDB (2004), WISE (2001), IDEAS (2003), and CIKM (1996) conferences and the General Chair of CAiSE (2002), as well as serving on the Program Committees of many conferences including SIGMOD, VLDB, and ICDE. He is also a member of Association for Computing Machinery's (ACM) Publications Board and is its Vice-Chair for New Publications.

Dr. Özsu was the Chair of *ACM Special Interest Group on Management of Data* (SIGMOD; 2001-2005) and a past trustee of the *VLDB Endowment* (1996-2002). He was a member and chair of the Computer and Information Science Grant Selection Committee of the Natural Sciences and Engineering Research Council of Canada during 1991-94, and served on the Management Committee of the Canadian Genome Analysis and Technology Program during 1992-93. He was Acting Chair of the Department of Computing Science at the University of Alberta during 1994-95, and again, for a brief period, in 2000.

Advisory Board

Serge Abiteboul
INRIA-Futurs INRIA, Saclay
Orsay, Cedex
France

Gustavo Alonso
ETH Zürich
Zürich
Switzerland

Peter M. G. Apers
University of Twente
Enschede
The Netherlands

Ricardo Baeza-Yates
Yahoo! Research
Barcelona
Spain

Catriel Beeri
Hebrew University of Jerusalem
Jerusalem
Israel

Elisa Bertino
Purdue University
West Lafayette, IN
USA

Stefano Ceri
Politecnico di Milano
Milan
Italy

Asuman Dogac
Middle East Technical University
Ankara
Turkey

Alon Halevy
Google, Inc.
Mountain View, CA
USA

Jiawei Han
University of Illinois at Urbana-Champaign
Urbana, IL
USA

Theo Härder
University of Kaiserslautern
Kaiserslautern
Germany

Joseph M. Hellerstein
University of California-Berkeley
Berkeley, CA
USA

Ramesh Jain
University of California-Irvine
Irvine, CA
USA

Matthias Jarke
RWTH-Aachen
Aachen
Germany

Jai Menon
IBM Systems and Technology Group
San Jose, CA
USA

John Mylopoulos
University of Toronto
Toronto, ON
Canada

Beng Chin Ooi
National University of Singapore
Singapore
Singapore

Erhard Rahm
University of Leipzig
Leipzig
Germany

Krithi Ramamritham

IIT Bombay
Mumbai
India

Schek Hans-Joerg

ETH Zürich
Zürich
Switzerland

Sellis Timos

National Technical University of Athens
Athens
Greece

Frank Wm. Tompa

University of Waterloo
Waterloo, ON
Canada

Patrick Valduriez

INRIA and LINA
Nantes
France

Gerhard Weikum

Max Planck Institute for Informatics
Saarbrücken
Germany

Jennifer Widom

Stanford University
Stanford, CA
USA

Lizhu Zhou

Tsinghua University
Beijing
China

Area Editors

Peer-to-Peer Data Management



KARL ABERER
EPFL-IC-IIF-LSIR
Lausanne
Switzerland

XML Data Management



SIHEM AMER-YAHIA
Yahoo! Research
New York, NY
USA

Database Management System Architectures



ANASTASIA AILAMAKI
EPF Lausanne
Lausanne
Switzerland

Database Middleware



CHRISTIANA AMZA
University of Toronto
Toronto, ON
Canada

Information Retrieval Models



GIAMBATTISTA AMATI
Fondazione Ugo Bordoni
Rome
Italy

Database Tools Database Tuning



PHILIPPE BONNET
University of Copenhagen
Copenhagen
Denmark
Visual Interfaces



TIZIANA CATARCI
University of Rome
Rome
Italy

Stream Data Management



UGUR CETINTEMELE
Brown University
Providence, RI
USA

Querying Over Data Integration Systems



KEVIN CHANG
University of Illinois at Urbana-Champaign
Urbana, IL
USA

Self Management



SURAJIT CHAUDHURI
Microsoft Research
Redmond, WA
USA

Text Mining



ZHENG CHEN
Microsoft Research Asia
Beijing
China

Extended Transaction Models (Advanced Concurrency Control Theory)



PANOS K. CHRYSANTHIS
University of Pittsburgh
Pittsburgh, PA
USA

Privacy-Preserving Data Mining



CHRIS CLIFTON
Purdue University
West Lafayette, IN
USA

Data Models (Including Semantic Data Models)



DAVID EMBLEY
Brigham Young University
Provo, UT
USA

Active Databases



KLAUS DITTRICH
University of Zürich
Zürich
Switzerland

Complex Event Processing



OPHER ETZION
IBM Research Lab in Haifa
Haifa
Israel

Digital Libraries



AMR EL ABBADI
University of California-Santa Barbara
Santa Barbara, CA
USA

Database Security and Privacy



ELENA FERRARI
University of Insubria
Varese
Italy

Semantic Web and Ontologies



AVIGDOR GAL
Technion - Israel Institute of Technology
Haifa
Israel

Data Cleaning



VENKATESH GANTI
Microsoft Research
Redmond, WA
USA

Web Data Extraction



GEORG GOTTLÖB
Oxford University
Oxford
UK

Sensor Networks



LE GRUENWALD
The University of Oklahoma
Norman, OK
USA

Data Clustering



DIMITRIOS GUNOPOULOS
University of Athens
Athens
Greece
University of California – Riverside
Riverside, CA
USA

Scientific Databases



AMARNATH GUPTA
University of California-San Diego
La Jolla, CA
USA

Geographic Information Systems



RALF HARTMUT GÜTING
University of Hagen
Hagen
Germany

Temporal Databases



CHRISTIAN JENSEN
Aalborg University
Aalborg
Denmark

Data Visualization



HANS HINTERBERGER
ETH Zürich
Zürich
Switzerland

Metadata Management



MANFRED JEUSFELD
Tilburg University
Tilburg
The Netherlands

Web Services and Service Oriented Architectures



HANS-ARNO JACOBSEN
University of Toronto
Toronto, ON
Canada

Health Informatics Databases



VIPUL KASHYAP
Partners Health Care System
Wellesley, MA
USA

Visual Data Mining



DANIEL KEIM
University of Konstanz
Konstanz
Germany

Views and View Management



YANNIS KOTIDIS
Athens University of Economics and Business
Athens
Greece

Data Replication



BETTINA KEMME
McGill University
Montreal, QC
Canada

Semi-Structured Text Retrieval



MOUNIA LALMAS
University of Glasgow
Glasgow
UK

Advanced Storage Systems Storage Structures and Systems



MASARU KITSUREGAWA
The University of Tokyo
Tokyo
Japan

Information Quality



YANG LEE
Northeastern University
Boston, MA
USA

Relational Theory



LEONID LIBKIN
University of Edinburgh
Edinburgh
UK

Database Design



JOHN MYLOPOULOS
University of Toronto
Toronto, ON
Canada

Information Retrieval Evaluation Measures



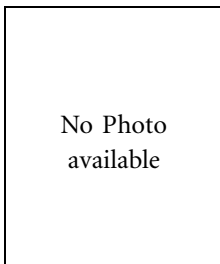
WEIYI MENG
State University of New York at Binghamton
Binghamton, NY
USA

Text Indexing Techniques



MARIO NASCIMENTO
University of Alberta
Edmonton, AB
Canada

Data Integration



RENÉE MILLER
University of Toronto
Toronto, ON
Canada

Data Quality



FELIX NAUMANN
Hasso Plattner Institute
Potsdam
Germany

Web Search and Crawl



CHRISTOPHER OLSTON
Yahoo! Research
Santa Clara, CA
USA

Data Warehouse



TORBEN BACH PEDERSEN
Aalborg University
Aalborg
Denmark

Multimedia Databases



VINCENT ORIA
New Jersey Institute of Technology
Newark, NJ
USA

Association Rule Mining



JIAN PEI
Simon Fraser University
Burnaby, BC
Canada

Spatial, Spatiotemporal, and Multidimensional Databases



DIMITRIS PAPADIAS
Hong Kong University of Science and Technology
Hong Kong
China

Workflow Management



BARBARA PERNICI
Politecnico di Milano
Milan
Italy

Query Processing and Optimization



EVAGGELIA PITOURA
University of Ioannina
Ioannina
Greece

Query Languages



TORE RISCH
Uppsala University
Uppsala
Sweden

Data Management for the Life Sciences



LOUIQA RASCHID
University of Maryland
College Park, MD
USA

Data Warehouse



STEFANO RIZZI
University of Bologna
Bologna
Italy

Information Retrieval Operations



EDIE RASMUSSEN
The University of British Columbia
Vancouver, BC
Canada

Multimedia Databases



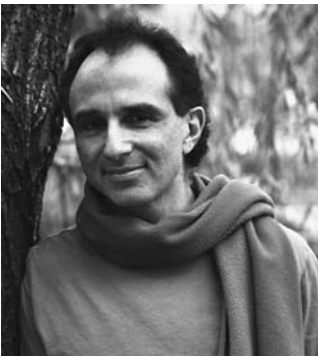
SHIN'ICHI SATOH
National Institute of Informatics
Tokyo
Japan

Spatial, Spatiotemporal, and Multidimensional Databases



TIMOS SELLIS
National Technical University of Athens
Athens
Greece

Database Tools Database Tuning



DENNIS SHASHA
New York University
New York, NY
USA

Classification and Decision Trees



KYUSEOK SHIM
Seoul National University
Seoul
Republic of Korea

Temporal Databases



RICK SNODGRASS
University of Arizona
Tucson, AZ
USA

Stream Mining



DIVESH SRIVASTAVA
AT&T Labs – Research
Florham Park, NJ
USA

Distributed Database Systems



KIAN-LEE TAN
National University of Singapore
Singapore
Singapore

Logics and Databases



VAL TANNEN
University of Pennsylvania
Philadelphia, PA
USA

Parallel Database Systems



PATRICK VALDURIEZ
INRIA and LINA
Nantes
France

Structured and Semi-Structured Document Databases



FRANK WM. TOMPA
University of Waterloo
Waterloo, ON
Canada

Advanced Storage Systems Storage structures and systems



KALADHAR VORUGANTI
Network Appliance
Sunnyvale, CA
USA

Indexing



VASSILIS TSOTRAS
University of California – Riverside
Riverside, CA
USA

Transaction Management



GOTTFRIED VOSEN
University of Münster
Münster
Germany

Self Management



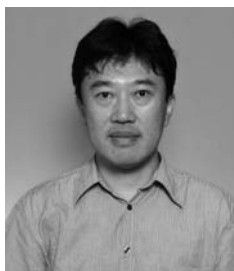
GERHARD WEIKUM
Max Planck Institute for Informatics
Saarbrücken
Germany

Mobile and Ubiquitous Data Management



OURI WOLFSON
University of Illinois at Chicago
Chicago, IL
USA

Multimedia Information Retrieval



JEFFREY XU YU
Chinese University of Hong Kong
Hong Kong
China

Approximation and Data Reduction Techniques



XIAOFANG ZHOU
The University of Queensland
Brisbane, QLD
Australia

List of Contributors

W. M. P. van der Aalst

Eindhoven University of Technology
Eindhoven
The Netherlands

Daniel Abadi

Yale University
New Haven, CT
USA

Alberto Abelló

Polytechnic University of Catalonia
Barcelona
Spain

Serge Abiteboul

INRIA, Saclay
Orsay, Cedex
France

Ioannis Aekaterinidis

University of Patras
Rio Patras
Greece

Nitin Agarwal

Arizona State University
Tempe, AZ
USA

Charu C. Aggarwal

IBM T. J. Watson Research Center
Yorktown Heights, NY
USA

Lalitha Agnihotri

Philips Research
Eindhoven
The Netherlands

Yanif Ahmad

Brown University
Providence, RI
USA

Gail-Joon Ahn

Arizona State University
Tempe, AZ
USA

Anastasia Ailamaki

EPFL
Lausanne
Switzerland

Yousef J. Al-Houmaily

Institute of Public Administration
Riyadh
Saudi Arabia

Robert B. Allen

Drexel University
Philadelphia, PA
USA

Gustavo Alonso

ETH Zurich
Zurich
Switzerland

Omar Alonso

University of California at Davis
Davis, CA
USA

Bernd Amann

Pierre & Marie Curie University (UPMC)
Paris
France

Giambattista Amati

Fondazione Ugo Bordononi
Rome
Italy

Rainer von Ammon

Center for Information Technology Transfer GmbH
(CITT)
Regensburg
Germany

Robert A. Amsler

CSC
Falls Church, VA
USA

Cristiana Amza

University of Toronto
Toronto, ON
Canada

George Anadiotis

VU University Amsterdam
Amsterdam
The Netherlands

Mihael Ankerst

Allianz
Munich
Germany

Sameer Antani

National Institutes of Health
Bethesda, MD
USA

Grigoris Antoniou

Foundation for Research and Technology-Hellas
(FORTH)
Heraklion
Greece

Arvind Arasu

Microsoft Research
Redmond, WA
USA

Danilo Ardagna

Politecnico di Milano
Milan
Italy

Walid G. Aref

Purdue University
West Lafayette, IN
USA

Marcelo Arenas

Pontifical Catholic University of Chile
Santiago
Chile

Samuel Aronson

Harvard Medical School
Boston, MA
USA

Paavo Arvola

University of Tampere
Tampere
Finland

Noboru Babaguchi

Osaka University
Osaka
Japan

Shivnath Babu

Duke University
Durham, NC
USA

Kenneth Paul Baclawski

Northeastern University
Boston, MA
USA

Ricardo Baeza-Yates

Yahoo! Research
Barcelona
Spain

James Bailey

University of Melbourne
Melbourne, VIC
Australia

Peter Bak

University of Konstanz
Konstanz
Germany

Magdalena Balazinska

University of Washington
Seattle, WA
USA

Farnoush Banaei-Kashani

University of Southern California
Los Angeles, CA
USA

Stefano Baraldi
University of Florence
Florence
Italy

Mauro Barbieri
Philips Research
Eindhoven
The Netherlands

Denilson Barbosa
University of Alberta
Edmonton, AL
Canada

Pablo Barceló
University of Chile
Santiago
Chile

Luciano Baresi
Politecnico di Milano
Milan
Italy

Ilaria Bartolini
University of Bologna
Bologna
Italy

Sugato Basu
Google Inc.
Mountain View, CA
USA

Carlo Batini
University of Milan Bicocca
Milan
Italy

Michal Batko
Masaryk University
Brno
Czech Republic

Peter Baumann
Jacobs University
Bremen
Germany

Robert Baumgartner
Vienna University of Technology
Vienna, Austria
Lixto Software GmbH
Vienna
Austria

Sean Bechhofer
University of Manchester
Manchester
UK

Steven M. Beitzel
Telcordia Technologies
Piscataway, NJ
USA

Ladjel Bellatreche
LISI/ENSMA–Poitiers University
Futuroscope Cedex
France

Omar Benjelloun
Google Inc.
Mountain View, CA
USA

Véronique Benzaken
University Paris 11
Orsay Cedex
France

Mikael Berndtsson
University of Skövde
Skövde
Sweden

Philip A. Bernstein
Microsoft Corporation
Redmond, WA
USA

Damon Andrew Berry
University of Massachusetts
Lowell, MA
USA

Leopoldo Bertossi

Carleton University
Ottawa, ON
Canada

Claudio Bettini

University of Milan
Milan
Italy

Nigel Bevan

Professional Usability Services
London
UK

Bharat Bhargava

Purdue University
West Lafayette, IN
USA

Arnab Bhattacharya

Indian Institute of Technology
Kanpur
India

Ernst Biersack

Eurecom
Sophia Antipolis
France

Alberto Del Bimbo

University of Florence
Florence
Italy

Alan F. Blackwell

University of Cambridge
Cambridge
UK

Carlos Blanco

University of Castilla-La Mancha
Ciudad Real
Spain

Marina Blanton

University of Notre Dame
Notre Dame, IN
USA

Philip Bohannon

Yahoo! Research
Santa Clara, CA
USA

Michael H. Böhlen

Free University of Bozen-Bolzano
Bozen-Bolzano
Italy

Christian Böhm

University of Munich
Munich
Germany

Peter Boncz

CWI
Amsterdam
The Netherlands

Philippe Bonnet

University of Copenhagen
Copenhagen
Denmark

Alexander Borgida

Rutgers University
New Brunswick, NJ
USA

Chavdar Botev

Yahoo Research! and Cornell University
Ithaca, NY
USA

Sara Bouchenak

University of Grenoble I — INRIA
Grenoble
France

Luc Bouganim

INRIA Paris-Rocquencourt
Le Chesnay Cedex
France

Nozha Boujemaa

INRIA Paris-Rocquencourt
Le Chesnay Cedex
France

Shawn Bowers

University of California-Davis
Davis, CA
USA

Stéphane Bressan

National University of Singapore
Singapore
Singapore

Martin Breunig

University of Osnabrueck
Osnabrueck
Germany

Scott A. Bridwell

University of Utah
Salt Lake City, UT
USA

Thomas Brinkhoff

Institute for Applied Photogrammetry and
Geoinformatics (IAPG)
Oldenburg
Germany

Andrei Broder

Yahoo! Research
Santa Clara, CA
USA

Nicolas Bruno

Microsoft Corporation
Redmond, WA
USA

François Bry

University of Munich
Munich
Germany

Yingyi Bu

Chinese University of Hong Kong
Hong Kong
China

Alejandro Buchmann

Darmstadt University of Technology
Darmstadt
Germany

Chiranjeeb Buragohain

Amazon.com
Seattle, WA
USA

Thorsten Buring

Ludwig-Maximilians-University Munich
Munich
Germany

Benjamin Bustos

Department of Computer Science
University of Chile
Santiago
Chile

David Buttler

Lawrence Livermore National Laboratory
Livermore, CA
USA

Yanli Cai

Shanghai Jiao Tong University
Shanghai
China

Guadalupe Canahuate

The Ohio State University
Columbus, OH
USA

K. Selcuk Candan

Arizona State University
Tempe, AZ
USA

Turkmen Canli

University of Illinois at Chicago
Chicago, IL
USA

Alan Cannon

Napier University
Edinburgh
UK

Cornelia Caragea

Iowa State University
Ames, IA
USA

Barbara Carminati

University of Insubria
Varese
Italy

Michael W. Carroll

Villanova University School of Law
Villanova, PA
USA

Ben Carterette

University of Massachusetts Amherst
Amherst, MA
USA

Marco A. Casanova

Pontifical Catholic University of Rio de Janeiro
Rio de Janeiro
Brazil

Giuseppe Castagna

C.N.R.S. and University Paris 7
Paris
France

Tiziana Catarci

University of Rome
Rome
Italy

James Caverlee

Texas A&M University
College Station, TX
USA

Emmanuel Cecchet

EPFL
Lausanne
Switzerland

Wojciech Cellary

Poznan University of Economics
Poznan
Poland

Michal Ceresna

Lixto Software GmbH
Vienna
Austria

Uğur Çetintemel

Brown University
Providence, RI
USA

Soumen Chakrabarti

Indian Institute of Technology of Bombay
Mumbai
India

Don Chamberlin

IBM Almaden Research Center
San Jose, CA
USA

Allen Chan

IBM Toronto Software Lab
Markham, ON
Canada

Chee Yong Chan

National University of Singapore
Singapore
Singapore

K. Mani Chandy

California Institute of Technology
Pasadena, CA
USA

Edward Y. Chang

Google Research
Mountain View, CA
USA

Kevin C. Chang

University of Illinois at Urbana-Champaign
Urbana, IL
USA

Surajit Chaudhuri

Microsoft Research
Redmond, WA
USA

Elizabeth S. Chen

Partners HealthCareSystem
Boston, MA
USA

James L. Chen

University of Illinois at Chicago
Chicago, IL
USA

Jinjun Chen

Swinburne University of Technology
Melbourne, VIC
Australia

Lei Chen

Hong Kong University of Science and Technology
Hong Kong
China

Peter P. Chen

Louisiana State University
Baton Rouge, LA
USA

Hong Cheng

University of Illinois at Urbana-Champaign
Urbana, IL
USA
Chinese University of Hong Kong
Hong Kong
China

Reynold Cheng

The University of Hong Kong
Hong Kong
China

Vivying S. Y. Cheng

Hong Kong University of Science and Technology
(HKUST)
Hong Kong
China

InduShobha N. Chengalur-Smith

University at Albany – SUNY
Albany, NY
USA

Mitch Cherniack

Brandeis University
Waltham, MA
USA

Yun Chi

NEC Laboratories America
Cupertino, CA
USA

Rada Chirkova

North Carolina State University
Raleigh, NC
USA

Jan Chomicki

State University of New York at Buffalo
Buffalo, NY
USA

Stephanie Chow

University of Ontario Institute of Technology (UOIT)
Oshawa, ON
Canada

Vassilis Christophides

University of Crete
Heraklion
Greece

Panos K. Chrysanthis

University of Pittsburgh
Pittsburgh, PA
USA

Paolo Ciaccia

University of Bologna
Bologna
Italy

John Cieslewicz

Columbia University
New York, NY
USA

Gianluigi Ciocca

University of Milano-Bicocca
Milan
Italy

Eugene Clark

Harvard Medical School
Boston, MA
USA

Charles L. A. Clarke

University of Waterloo
Waterloo, ON
Canada

Eliseo Clementini

University of L'Aquila
L'Aquila
Italy

Chris Clifton

Purdue University
West Lafayette, IN
USA

Edith Cohen

AT&T Labs-Research
Florham Park, NJ
USA

Sara Cohen

The Hebrew University of Jerusalem
Jerusalem
Israel

Sarah Cohen-Boulakia

University of Pennsylvania
Philadelphia, PA
USA

Carlo Combi

University of Verona
Verona
Italy

Mariano P. Consens

University of Toronto
Toronto, ON
Canada

Dianne Cook

Iowa State University
Ames, IA
USA

Graham Cormode

AT&T Labs-Research
Florham Park, NJ
USA

Antonio Corral

University of Almeria
Almeria
Spain

Maria Francesca Costabile

University of Bari
Bari
Italy

Nick Craswell

Microsoft Research Cambridge
Cambridge
UK

Fabio Crestani

University of Lugano
Lugano
Switzerland

Marco Antonio Cristo

FUCAPI
Manaus
Brazil

Maxime Crochemore

King's College London
London
UK
University of Paris-East
Paris
France

Matthew G. Crowson

University of Illinois at Chicago
Chicago, IL
USA

Michel Crucianu

National Conservatory of Arts and Crafts
Paris
France

Philippe Cudré-Mauroux

Massachusetts Institute of Technology
Cambridge, MA
USA

Francisco Curbera

IBM T.J. Watson Research Center
Hawthorne, NY
USA

Peter Dadam

University of Ulm
Ulm
Germany

Mehmet M. Dalkılıç

Indiana University
Bloomington, IN
USA

Nilesh Dalvi

Yahoo! Research
Santa Clara, CA
USA

Manoranjan Dash

Nanyang Technological University
Singapore
Singapore

Anwitaman Datta

Nanyang Technological University
Singapore
Singapore

Ian Davidson

University of California-Davis
Davis, CA
USA

Antonios Deligiannakis

University of Athens
Athens
Greece

Alex Delis

University of Athens
Athens
Greece

Alan Demers

Cornell University
Ithaca, NY
USA

Ke Deng

University of Queensland
Brisbane, QLD
Australia

Amol Deshpande

University of Maryland
College Park, MD
USA

Zoran Despotovic

NTT DoCoMo Communications Laboratories Europe
Munich
Germany

Alin Deutsch

University of California-San Diego
La Jolla, CA
USA

Yanlei Diao

University of Massachusetts
Amherst, MA
USA

Suzanne W. Dietrich

Arizona State University
Phoenix, AZ
USA

Nevenka Dimitrova

Philips Research
Eindhoven
The Netherlands

Bolin Ding

University of Illinois at Urbana-Champaign
Champaign, IL
USA

Chris Ding

University of Texas at Arlington
Arlington, TX
USA

Alan Dix

Lancaster University
Lancaster
UK

Hong-Hai Do

SAP AG
Dresden
Germany

Gillian Dobbie

University of Auckland
Auckland
New Zealand

Alin Dobra

University of Florida
Gainesville, FL
USA

Vlastislav Dohnal

Masaryk University
Brno
Czech Republic

Mario Döllner

University of Passau
Passau
Germany

Carlotta Domeniconi

George Mason University
Fairfax, VA
USA

Josep Domingo-Ferrer

Universitat Rovira i Virgili
Tarragona
Spain

Guozhu Dong

Wright State University
Dayton, OH
USA

Xin Luna Dong

AT&T Labs–Research
Florham Park, NJ
USA

Chitra Dorai

IBM T. J. Watson Research Center
Hawthorne, NY
USA

Zhicheng Dou

Nankai University
Tianjin
China

Yang Du

Northeastern University
Boston, MA
USA

Marlon Dumas

University of Tartu
Tartu
Estonia

Susan Dumais

Microsoft Research
Redmond, WA
USA

Schahram Dustdar

Technical University of Vienna
Vienna
Austria

Curtis Dyreson

Utah State University
Logan, UT
USA

Todd Eavis

Concordia University
Montreal, QC
Canada

Johann Eder

University of Vienna
Vienna
Austria

Ibrahim Abu El-Khair

Minia University
Minia
Egypt

Ahmed K. Elmagarmid

Purdue University
West Lafayette, IN
USA

Sameh Elnikety

Microsoft Research
Cambridge
UK

David W. Embley

Brigham Young University
Provo, UT
USA

Vincent Englebert

University of Namur
Namur
Belgium

AnnMarie Ericsson

University of Skövde
Skövde
Sweden

Martin Ester

Simon Fraser University
Burnaby, BC
Canada

Opher Etzion

IBM Research Labs-Haifa
Haifa
Israel

Patrick Eugster

Purdue University
West Lafayette, IN
USA

Ronald Fagin

IBM Almaden Research Center
San Jose, CA
USA

Hui Fang

University of Delaware
Newark, DE
USA

Wei Fan

IBM T.J. Watson Research
Hawthorne, NY
USA

Wenfei Fan

University of Edinburgh
Edinburgh
UK

Alan Fekete

University of Sydney
Sydney, NSW
Australia

Jean-Daniel Fekete

INRIA, LRI University Paris Sud
Orsay Cedex
France

Pascal Felber

University of Neuchatel
Neuchatel
Switzerland

Paolino Di Felice

University of L'Aquila
L'Aquila
Italy

Hakan Ferhatosmanoglu

The Ohio State University
Columbus, OH
USA

Eduardo B. Fernandez

Florida Atlantic University
Boca Raton, FL
USA

Eduardo Fernández-Medina

University of Castilla-La Mancha
Ciudad Real
Spain

Paolo Ferragina

University of Pisa
Pisa
Italy

Elena Ferrari

University of Insubria
Varese
Italy

Dennis Fetterly

Microsoft Research
Mountain View, CA
USA

Stephen E. Fienberg

Carnegie Mellon University
Pittsburgh, PA
USA

Peter M. Fischer

ETH Zurich
Zurich
Switzerland

Simone Fischer-Hübner

Karlstad University
Karlstad
Sweden

Leila De Floriani

University of Genova
Genova
Italy

Christian Fluhr

CEA LIST, Fontenay-aux
Roses
France

Greg Flurry

IBM SOA Advanced Technology
Armonk, NY
USA

Edward A. Fox

Virginia Tech
Blacksburg, VA
USA

Chiara Francalanci

Politecnico di Milano University
Milan
Italy

Andrew U. Frank

Vienna University of Technology
Vienna
Austria

Michael J. Franklin

University of California-Berkeley
Berkeley, CA
USA

Keir Fraser

University of Cambridge
Cambridge
UK

Juliana Freire

University of Utah
Salt Lake City, UT
USA

Elias Frenzos

University of Piraeus
Piraeus
Greece

Johann-Christoph Freytag

Humboldt University of Berlin
Berlin
Germany

Ophir Frieder

Georgetown University
Washington, DC
USA

Oliver Frölich

Lixto Software GmbH
Vienna
Austria

Tim Furche

University of Munich
Munich
Germany

Ariel Fuxman

Microsoft Research
Mountain View, CA
USA

Ada Wai-Chee Fu

Hong Kong University of Science and Technology
Hong Kong
China

Silvia Gabrielli

Bruno Kessler Foundation
Trento
Italy

Isabella Gagliardi

National Research Council (CNR)
Milan
Italy

Avigdor Gal

Technion – Israel Institute of Technology
Haifa
Israel

Wojciech Galuba

Ecole Polytechnique Fédérale de Lausanne (EPFL)
Lausanne
Switzerland

Johann Gamper

Free University of Bozen-Bolzano
Bolzano
Italy

Vijay Gandhi

University of Minnesota
Minneapolis, MN
USA

Venkatesh Ganti

Microsoft Research
Redmond, WA
USA

Dengfeng Gao

IBM Silicon Valley Lab
San Jose, CA
USA

Like Gao

Teradata Corporation
San Diego, CA
USA

Wei Gao

The Chinese University of Hong Kong
Hong Kong
China

Minos Garofalakis

Technical University of Crete
Chania
Greece

Wolfgang Gatterbauer

University of Washington
Seattle, WA
USA

Bugra Gedik

IBM T.J. Watson Research Center
Hawthorne, NY
USA

Floris Geerts

University of Edinburgh
Edinburgh
UK

Johannes Gehrke

Cornell University
Ithaca, NY
USA

Betsy George

University of Minnesota
Minneapolis, MN
USA

Lawrence Gerstley

PSMI Consulting
San Francisco, CA
USA

Michael Gertz

University of California - Davis
Davis, CA
USA

Giorgio Ghelli

University of Pisa
Pisa
Italy

Gabriel Ghinita

National University of Singapore
Singapore
Singapore

Phillip B. Gibbons

Intel Research
Pittsburgh, PA
USA

Sarunas Girdzijauskas

EPFL
Lausanne
Switzerland

Fausto Giunchiglia

University of Trento
Trento
Italy

Kazuo Goda

The University of Tokyo
Tokyo
Japan

Max Goebel

Vienna University of Technology
Vienna
Austria

Bart Goethals

University of Antwerp
Antwerp
Belgium

Martin Gogolla

University of Bremen
Bremen
Germany

Aniruddha Gokhale

Vanderbilt University
Nashville, TN
USA

Lukasz Golab

AT&T Labs-Research
Florham Park, NJ
USA

Matteo Golfarelli

University of Bologna
Bologna
Italy

Michael F. Goodchild

University of California-Santa Barbara
Santa Barbara, CA
USA

Georg Gottlob

Oxford University
Oxford
UK

Valerie Guet-Brunet

CNAM Paris
Paris
France

Ramesh Govindan

University of Southern California
Los Angeles, CA
USA

Goetz Graefe

Hewlett-Packard Laboratories
Palo Alto, CA
USA

Gösta Grahne

Concordia University
Montreal, QC
Canada

Fabio Grandi

University of Bologna
Bologna
Italy

Tyrone Grandison

IBM Almaden Research Center
San Jose, CA
USA

Peter M. D. Gray
University of Aberdeen
Aberdeen
UK

Todd J. Green
University of Pennsylvania
Philadelphia, PA
USA

Georges Grinstein
University of Massachusetts
Lowell, MA
USA

Tom Gruber
RealTravel
Emerald Hills, CA
USA

Le Gruenwald
The University of Oklahoma
Norman, OK
USA

Torsten Grust
University of Tübingen
Tübingen
Germany

Ralf Hartmut Güting
University of Hagen
Hagen
Germany

Dirk Van Gucht
Indiana University
Bloomington, IN
USA

Carlos Guestrin
Carnegie Mellon University
Pittsburgh, PA
USA

Dimitrios Gunopulos
University of California-Riverside
Riverside, CA
USA
University of Athens
Athens
Greece

Amarnath Gupta
University of California-San Diego
La Jolla, CA
USA

Himanshu Gupta
Stony Brook University
Stony Brook, NY
USA

Cathal Gurrin
Dublin City University
Dublin
Ireland

Marc Gyssens
University of Hasselt & Transnational University of
Limburg
Diepenbeek
Belgium

Karl Hahn
BMW AG
Munich
Germany

Jean-Luc Hainaut
University of Namur
Namur
Belgium

Alon Halevy
Google Inc.
Mountain View, CA
USA

Maria Halkidi
University of Piraeus
Piraeus
Greece

Terry Halpin
Neumont University
South Jordan, UT
USA

Jiawei Han
University of Illinois at Urbana-Champaign
Urbana, IL
USA

Alan Hanjalic

Delft University of Technology
Delft
The Netherlands

David Hansen

The Australian e-Health Research Centre
Brisbane, QLD
Australia

Jörgen Hansson

Carnegie Mellon University
Pittsburgh, PA
USA

Nikos Hardavellas

Carnegie Mellon University
Pittsburgh, PA
USA

Theo Härder

University of Kaiserslautern
Kaiserslautern
Germany

David Harel

The Weizmann Institute of Science
Rehovot
Israel

Jayant R. Haritsa

Indian Institute of Science
Bangalore
India

Stavros Harizopoulos

HP Labs
Palo Alto, CA
USA

Per F. V. Hasle

Aalborg University
Aalborg
Denmark

Jordan T. Hastings

University of California-Santa Barbara
Santa Barbara, CA
USA

Alexander Hauptmann

Carnegie Mellon University
Pittsburgh, PA
USA

Helwig Hauser

University of Bergen
Bergen
Norway

Ben He

University of Glasgow
Glasgow
UK

Pat Helland

Microsoft Corporation
Redmond, WA
USA

Joseph M. Hellerstein

University of California-Berkeley
Berkeley, CA
USA

Jean Henrard

University of Namur
Namur
Belgium

John Herring

Oracle Corporation
Nashua, NH
USA

Nicolas Hervé

INRIA Paris-Rocquencourt
Le Chesnay Cedex
France

Marcus Herzog

Vienna University of Technology
Vienna
Austria
Lixto Software GmbH
Vienna
Austria

Jean-Marc Hick

University of Namur
Namur
Belgium

Jan Hidders

University of Antwerp
Antwerpen
Belgium

Djoerd Hiemstra

University of Twente
Enschede
The Netherlands

Linda L. Hill

University of California-Santa Barbara
Santa Barbara, CA
USA

Alexander Hinneburg

Martin-Luther-University Halle-Wittenberg
Halle/Saale
Germany

Hans Hinterberger

ETH Zurich
Zurich
Switzerland

Erik Hoel

Environmental Systems Research Institute
Redlands, CA
USA

Vasant Honavar

Iowa State University
Ames, IA
USA

Mingsheng Hong

Cornell University
Ithaca, NY
USA

Haruo Hosoya

The University of Tokyo
Tokyo
Japan

Wynne Hsu

National University of Singapore
Singapore
Singapore

Jian Hu

Microsoft Research Asia
Haidian
China

Kien A. Hua

University of Central Florida
Orlando, FL
USA

Xian-Sheng Hua

Microsoft Research Asia
Beijing
China

Jun Huan

University of Kansas
Lawrence, KS
USA

Haoda Huang

Microsoft Research Asia
Beijing
China

Michael Huggett

University of British Columbia
Vancouver, BC
Canada

Patrick C. K. Hung

University of Ontario Institute of Technology (UOIT)
Oshawa, ON
Canada

Jeong-Hyon Hwang

Brown University
Providence, RI
USA

Ichiro Ide

Nagoya University
Nagoya
Japan

Alfred Inselberg

Tel Aviv University
Tel Aviv
Israel

Yannis Ioannidis

University of Athens
Athens
Greece

Panagiotis G. Ipeirotis

New York University
New York, NY
USA

Zachary Ives

University of Pennsylvania
Philadelphia, PA
USA

Hans-Arno Jacobsen

University of Toronto
Toronto, ON
Canada

H. V. Jagadish

University of Michigan
Ann Arbor, MI
USA

Alejandro Jaimes

Telefonica R&D
Madrid
Spain

Ramesh Jain

University of California-Irvine
Irvine, CA
USA

Sushil Jajodia

George Mason University
Fairfax, VA
USA

Greg Janée

University of California-Santa Barbara
Santa Barbara, CA
USA

Kalervo Järvelin

University of Tampere
Tampere
Finland

Christian S. Jensen

Aalborg University
Aalborg
Denmark

Eric C. Jensen

Twitter, Inc.
San Francisco, CA
USA

Manfred A. Jeusfeld

Tilburg University
Tilburg
The Netherlands

Heng Ji

New York University
New York, NY
USA

Ricardo Jimenez-Peris

Universidad Politecnica de Madrid
Madrid
Spain

Jiashun Jin

Carnegie Mellon University
Pittsburgh, PA
USA

Ryan Johnson

Carnegie Mellon University
Pittsburgh, PA
USA

Theodore Johnson

AT&T Labs Research
Florham Park, NJ
USA

Christopher B. Jones

Cardiff University
Cardiff
UK

Rosie Jones

Yahoo! Research
Burbank, CA
USA

James B. D. Joshi

University of Pittsburgh
Pittsburgh, PA
USA

Vanja Josifovski

Uppsala University
Uppsala
Sweden

Marko Junkkari

University of Tampere
Tampere
Finland

Jan Jurjens

The Open University
Buckinghamshire
UK

Mouna Kacimi

Max-Planck Institute for Informatics
Saarbrücken
Germany

Tamer Kahveci

University of Florida
Gainesville, FL
USA

Panos Kalnis

National University of Singapore
Singapore
Singapore

Jaap Kamps

University of Amsterdam
Amsterdam
The Netherlands

James Kang

University of Minnesota
Minneapolis, MN
USA

Carl-Christian Kanne

University of Mannheim
Mannheim
Germany

Aman Kansal

Microsoft Research
Redmond, WA
USA

Murat Kantarcioglu

University of Texas at Dallas
Dallas, TX
USA

George Karabatis

University of Maryland Baltimore County (UMBC)
Baltimore, MD
USA

Grigoris Karvounarakis

University of Pennsylvania
Philadelphia, PA
USA

George Karypis

University of Minnesota
Minneapolis, MN
USA

Vipul Kashyap

Partners Healthcare System
Wellesley, MA
USA

Yannis Katsis

University of California-San Diego
La Jolla, CA
USA

Raghav Kaushik

Microsoft Research
Redmond, WA
USA

Gabriella Kazai

Microsoft Research Cambridge
Cambridge
UK

Daniel A. Keim

University of Konstanz
Konstanz
Germany

Jaana Kekäläinen

University of Tampere
Tampere
Finland

Anastasios Kementsietsidis

IBM T.J. Watson Research Center
Hawthorne, NY
USA

Bettina Kemme

McGill University
Montreal, QC
Canada

Jessie Kennedy

Napier University
Edinburgh
UK

Vijay Khatri

Indiana University
Bloomington, IN
USA

Ashfaq Khokhar

University of Illinois at Chicago
Chicago, IL
USA

Daniel Kifer

Yahoo! Research
Santa Clara, CA
USA

Stephen Kimani

CSIRO Tasmanian ICT Centre
Hobart, TAS
Australia

Craig A. Knoblock

University of Southern California
Marina del Rey, CA
USA

Christoph Koch

Cornell University
Ithaca, NY
USA

Solmaz Kolahi

University of British Columbia
Vancouver, BC
Canada

George Kollios

Boston University
Boston, MA
USA

Poon Wei Koot

Nanyang Technological University
Singapore
Singapore

Flip R. Korn

AT&T Labs–Research
Florham Park, NJ
USA

Harald Kosch

University of Passau
Passau
Germany

Cartik R. Kothari

University of British Columbia
Vancouver, BC
Canada

Yannis Kotidis

Athens University of Economics and Business
Athens
Greece

Spyros Kotoulas

VU University Amsterdam
Amsterdam
The Netherlands

Manolis Koubarakis

University of Athens
Athens
Greece

Konstantinos Koutroumbas

Institute for Space Applications and Remote Sensing
Athens
Greece

Bernd J. Krämer

University of Hagen
Hagen
Germany

Peer Krögerand

Ludwig-Maximilians University of Munich
Munich
Germany

Werner Kriechbaum

IBM Development Lab
Böblingen
Germany

Hans-Peter Kriegel

Ludwig-Maximilians-University
Munich
Germany

Rajasekar Krishnamurthy

IBM Almaden Research Center
San Jose, CA
USA

Ravi Kumar

Yahoo Research
Santa Clara, CA
USA

Nicholas Kushmerick

Decho Corporation
Seattle, WA
USA

Mary Laarsgard

University of California-Santa Barbara
Santa Barbara, CA
USA

Alexandros Labrinidis

University of Pittsburgh
Pittsburgh, PA
USA

Zoé Lacroix

Arizona State University
Tempe, AZ
USA

Alberto H. F. Laender

Federal University of Minas Gerais
Belo Horizonte
Brazil

Bibudh Lahiri

Iowa State University
Ames, IA
USA

Laks V. S. Lakshmanan

University of British Columbia
Vancouver, BC
Canada

Mounia Lalmas

University of Glasgow
Glasgow
UK

Lea Landucci

University of Florence
Florence
Italy

Birger Larsen

Royal School of Library and Information Science
Copenhagen
Denmark

Per-Åke Larson

Microsoft Corporation
Redmond, WA
USA

Robert Laurini

LIRIS, INSA-Lyon
Lyon
France

Georg Lausen

University of Freiburg
Freiburg
Germany

Jens Lechtenböerger
University of Münster
Münster
Germany

Thierry Lecroq
University of Rouen
Rouen
France

Dongwon Lee
The Pennsylvania State University
University Park, PA
USA

Yang W. Lee
Northeastern University
Boston, MA
USA

Pieter De Leenheer
Vrije Universiteit Brussel, Collibra nv
Brussels
Belgium

Wolfgang Lehner
Dresden University of Technology
Dresden
Germany

Ronny Lempel
Yahoo! Research
Haifa
Israel

Kristina Lerman
University of Southern California
Marina del Rey, CA
USA

Ulf Leser
Humboldt University of Berlin
Berlin
Germany

Carson Kai-Sang Leung
University of Manitoba
Winnipeg, MB
Canada

Stefano Levialdi
Sapienza University of Rome
Rome
Italy

Brian Levine
University of Massachusetts
Amherst, MA
USA

Changqing Li
Duke University
Durham, NC
USA

Chen Li
University of California-Irvine
Irvine, CA
USA

Chengkai Li
University of Texas at Arlington
Arlington, TX
USA

Hua Li
Microsoft Research Asia
Beijing
China

Jinyan Li
Nanyang Technological University
Singapore
Singapore

Ninghui Li
Purdue University
West Lafayette, IN
USA

Ping Li
Cornell University
Ithaca, NY
USA

Qing Li
City University of Hong Kong
Hong Kong
China

Xue Li

The University of Queensland
Brisbane, QLD
Australia

Ying Li

IBM T.J. Watson Research Center
Hawthorne, NY
USA

Yun Yao Li

IBM Almaden Research Center
San Jose, CA
USA

Leonid Libkin

University of Edinburgh
Edinburgh
UK

Sam S Lightstone

IBM, Canada Ltd.
Markham, ON
Canada

Jimmy Lin

University of Maryland
College Park, MD
USA

Tsau Young (T.Y.) Lin

San Jose State University
San Jose, CA
USA

Xuemin Lin

University of New South Wales
Sydney, NSW
Australia

Tok Wang Ling

National University of Singapore
Singapore
Singapore

Bing Liu

University of Illinois at Chicago
Chicago, IL
USA

Danzhou Liu

University of Central Florida
Orlando, FL
USA

Guimei Liu

National University of Singapore
Singapore
Singapore

Huan Liu

Arizona State University
Tempe, AZ
USA

Jinze Liu

University of Kentucky
Lexington, KY
USA

Ning Liu

Microsoft Research Asia
Beijing
China

Qing Liu

CSIRO Tasmanian ICT Centre
Hobart, TAS
Australia

Vebjorn Ljosa

Broad Institute of MIT and Harvard
Cambridge, MA
USA

David Lomet

Microsoft Research
Redmond, WA
USA

Phillip Lord

Newcastle University
Newcastle-Upon-Tyne
UK

Nikos A. Lorentzos

Agricultural University of Athens
Athens
Greece

Lie Lu

Microsoft Research Asia
Beijing
China

Bertram Ludäscher

University of California-Davis
Davis, CA
USA

Yan Luo

University of Illinois at Chicago
Chicago, IL
USA

Yves A. Lussier

University of Chicago
Chicago, IL
USA

Craig MacDonald

University of Glasgow
Glasgow
UK

Ashwin Machanavajhala

Cornell University
Ithaca, NY
USA

Sam Madden

Massachusetts Institute of Technology
Cambridge, MA
USA

Paola Magillo

University of Genova
Genova
Italy

David Maier

Portland State University
Portland, OR
USA

Paul Maier

Technical University of Munich
Munich
Germany

Nikos Mamoulis

University of Hong Kong
Hong Kong
China

Stefan Manegold

CWI
Amsterdam
The Netherlands

Murali Mani

Worcester Polytechnic Institute
Worcester, MA
USA

Serge Mankovski

CA Labs, CA Inc.
Thornhill, ON
Canada

Ioana Manolescu

INRIA, Saclay-Île-de-France
Orsay
France

Yannis Manolopoulos

Aristotle University of Thessaloniki
Thessaloniki
Greece

Svetlana Mansmann

University of Konstanz
Konstanz
Germany

Florian Mansmann

University of Konstanz
Konstanz
Germany

Shahar Maoz

The Weizmann Institute of Science
Rehovot
Israel

Amélie Marian

Rutgers University
Piscataway, NJ
USA

Volker Markl

IBM Almaden Research Center
San Jose, CA
USA

Maria De Marsico

Sapienza University of Rome
Rome
Italy

David Martin

SRI International
Menlo Park, CA
USA

Maria Vanina Martinez

University of Maryland
College Park, MD
USA

Maristella Matera

Polytechnico di Milano
Milan
Italy

Marta Mattoso

Federal University of Rio de Janeiro
Rio de Janeiro
Brazil

Andrea Maurino

University of Milan Bicocca
Milan
Italy

Jan Małuszyński

Linköping University
Linköping
Sweden

Jose-Norberto Mazón

University of Alicante
Alicante
Spain

Kevin S. McCurley

Google Research
Mountain View, CA
USA

Andrew McGregor

Microsoft Research
Mountain View, CA
USA

Timothy McPhillips

University of California-Davis
Davis, CA
USA

Brahim Medjahed

The University of Michigan–Dearborn
Dearborn, MI
USA

Carlo Meghini

The Italian National Research Council
Pisa
Italy

Tao Mei

Microsoft Research Asia
Beijing
China

Jonas Mellin

University of Skövde
Skövde
Sweden

Massimo Melucci

University of Padua
Padua
Italy

Weiyi Meng

State University of New York at Binghamton
Binghamton, NY
USA

Ahmed Metwally

Google Inc.
Mountain View, CA
USA

Gerome Miklau

University of Massachusetts
Amherst, MA
USA

Harvey J. Miller
University of Utah
Salt Lake City, UT
USA

Renée J. Miller
University of Toronto
Toronto, ON
Canada

Tova Milo
Tel Aviv University
Tel Aviv
Israel

Prasenjit Mitra
The Pennsylvania State University
University Park, PA
USA

Michael Mitzenmacher
Harvard University
Boston, MA
USA

Mukesh Mohania
IBM India Research Lab
New Delhi
India

Mohamed F. Mokbel
University of Minnesota
Minneapolis, MN
USA

Angelo Montanari
University of Udine
Udine
Italy

Reagan W. Moore
University of California - San Diego
La Jolla, CA
USA

Konstantinos Morfonios
University of Athens
Athens
Greece

Peter Mork
The MITRE Corporation
McLean, VA
USA

Mirella M. Moro
Federal University of Rio Grande do Sol
Porto Alegre
Brazil

Edleno Silva de Moura
Federal University of Amazonas
Manaus
Brazil

Kyriakos Mouratidis
Singapore Management University
Singapore
Singapore

Kamesh Munagala
Duke University
Durham, NC
USA

Ethan V. Munson
University of Wisconsin-Milwaukee
Milwaukee, WI
USA

Shawn Murphy
Massachusetts General Hospital
Boston, MA
USA

John Mylopoulos
University of Toronto
Toronto, ON
Canada

Frank Nack
University of Amsterdam
Amsterdam
The Netherlands

Marc Najork
Microsoft Research
Mountain View, CA
USA

Ullas Nambiar

IBM India Research Lab
New Delhi
India

Alexandros Nanopoulos

Aristotle University
Thessaloniki
Greece

Vivek Narasayya

Microsoft Corporation
Redmond, WA
USA

Mario A. Nascimento

University of Alberta
Edmonton, AB
Canada

Alan Nash

Aleph One LLC
La Jolla, CA
USA

Harald Naumann

Vienna University of Technology
Vienna
Austria

Gonzalo Navarro

University of Chile
Santiago
Chile

Wolfgang Nejdl

University of Hannover
Hannover
Germany

Thomas Neumann

Max-Planck Institute for Informatics
Saarbrücken
Germany

Frank Neven

Hasselt University and Transnational University of
Limburg
Diepenbeek
Belgium

Chong-Wah Ngo

City University of Hong Kong
Hong Kong
China

Peter Niblett

IBM United Kingdom Limited
Winchester
UK

Naoko Nitta

Osaka University
Osaka
Japan

Igor Nitto

University of Pisa
Pisa
Italy

Cheng Niu

Microsoft Research Asia
Beijing
China

Vilém Novák

University of Ostrava
Ostrava
Czech Republic

Chimezie Ogbuji

Cleveland Clinic Foundation
Cleveland, OH
USA

Peter Øhrstrøm

Aalborg University
Aalborg
Denmark

Christine M. O'Keefe

CSIRO Preventative Health National Research
Flagship
Acton, ACT
Australia

Patrick O'Neil

University of Massachusetts
Boston, MA
USA

Iadh Ounis

University of Glasgow
Glasgow
UK

Mourad Ouzzani

Purdue University
West Lafayette, IN
USA

Fatma Özcan

IBM Almaden Research Center
San Jose, CA
USA

M. Tamer Özsu

University of Waterloo
Waterloo, ON
Canada

Esther Pacitti

University of Nantes
Nantes
France

Chris D. Paice

Lancaster University
Lancaster
UK

Noël De Palma

INPG – INRIA
Grenoble
France

Nathaniel Palmer

Workflow Management Coalition
Hingham, MA
USA

Biswanath Panda

Cornell University
Ithaca, NY
USA

Ippokratis Pandis

Carnegie Mellon University
Pittsburgh, PA
USA

Dimitris Papadias

Hong Kong University of Science and Technology
Hong Kong
China

Spiros Papadimitriou

IBM T.J. Watson Research Center
Hawthorne, NY
USA

Apostolos N. Papadopoulos

Aristotle University
Thessaloniki
Greece

Yannis Papakonstantinou

University of California-San Diego
La Jolla, CA
USA

Jan Paredaens

University of Antwerp
Antwerpen
Belgium

Christine Parent

University of Lausanne
Lausanne
Switzerland

Gabriella Pasi

University of Milano-Bicocca
Milan
Italy

Chintan Patel

Columbia University
New York, NY
USA

Jignesh M. Patel

University of Wisconsin-Madison
Madison, WI
USA

Marta Patiño-Martinez

Universidad Polytechnica de Madrid
Madrid
Spain

Norman W. Paton
University of Manchester
Manchester
UK

Cesare Pautasso
University of Lugano
Lugano
Switzerland

Torben Bach Pedersen
Aalborg University
Aalborg
Denmark

Fernando Pedone
University of Lugano
Lugano
Switzerland

Jovan Pehcevski
INRIA Paris-Rocquencourt
Le Chesnay Cedex
France

Jian Pei
Simon Fraser University
Burnaby, BC
Canada

Ronald Peikert
ETH Zurich
Zurich
Switzerland

Mor Peleg
University of Haifa
Haifa
Israel

Fuchun Peng
Yahoo! Inc.
Sunnyvale, CA
USA

Liam Peyton
University of Ottawa
Ottawa, ON
Canada

Mario Piattini
University of Castilla-La Mancha
Ciudad Real
Spain

Benjamin C. Pierce
University of Pennsylvania
Philadelphia, PA
USA

Karen Pinel-Sauvagnat
IRIT-SIG
Toulouse Cedex
France

Leo L. Pipino
University of Massachusetts
Lowell, MA
USA

Peter Pirolli
Palo Alto Research Center
Palo Alto, CA
USA

Evaggelia Pitoura
University of Ioannina
Ioannina
Greece

Benjamin Piwowarski
University of Glasgow
Glasgow
UK

Vassilis Plachouras
Yahoo! Research
Barcelona
Spain

Catherine Plaisant
University of Maryland
College Park, MD
USA

Claudia Plant
University of Munich
Munich
Germany

Christian Platzer

Technical University of Vienna
Vienna
Austria

Dimitris Plexousakis

Foundation for Research and Technology-Hellas
(FORTH)
Heraklion
Greece

Neoklis Polyzotis

University of California Santa Cruz
Santa Cruz, CA
USA

Raymond K. Pon

University of California - Los Angeles
Los Angeles, CA
USA

Lucian Popa

IBM Almaden Research Center
San Jose, CA
USA

Alexandra Poulouvassilis

University of London
London
UK

Sunil Prabhakar

Purdue University
West Lafayette, IN
USA

Cecilia M. Procopiuc

AT&T Labs
Florham Park, NJ
USA

Enrico Puppo

University of Genova
Genova
Italy

Ross S. Purves

University of Zurich
Zurich
Switzerland

Vivien Quéma

CNRS, INRIA
Saint-Ismier Cedex
France

Christoph Quix

RWTH Aachen University
Aachen
Germany

Sriram Raghavan

IBM Almaden Research Center
San Jose, CA
USA

Erhard Rahm

University of Leipzig
Leipzig
Germany

Krithi Ramamritham

IIT Bombay
Mumbai
India

Maya Ramanath

Max-Planck Institute for Informatics
Saarbrücken
Germany

Georgina Ramírez

Yahoo! Research Barcelona
Barcelona
Spain

Eddie Rasmussen

University of British Columbia
Vancouver, BC
Canada

Indrakshi Ray

Colorado State University
Fort Collins, CO
USA

Diego Reforgiato Recupero

University of Maryland
College Park, MD
USA

Colin R. Reeves

Coventry University
Coventry
UK

Payam Refaeilzadeh

Arizona State University
Tempe, AZ
USA

Bernd Reiner

Technical University of Munich
Munich
Germany

Frederick Reiss

IBM Almaden Research Center
San Jose, CA
USA

Harald Reiterer

University of Konstanz
Konstanz
Germany

Matthias Renz

Ludwig Maximilian University of Munich
Munich
Germany

Andreas Reuter

EML Research gGmbH Villa Bosch
Heidelberg
Germany
Technical University Kaiserslautern
Kaiserslautern
Germany

Peter Revesz

University of Nebraska-Lincoln
Lincoln, NE
USA

Mirek Riedewald

Cornell University
Ithaca, NY
USA

Rami Rifaieh

University of California-San Diego
San Diego, CA
USA

Stefanie Rinderle

University of Ulm
Ulm
Germany

Tore Risch

Uppsala University
Uppsala
Sweden

Thomas Rist

University of Applied Sciences
Augsburg
Germany

Stefano Rizzi

University of Bologna
Bologna
Italy

Stephen Robertson

Microsoft Research Cambridge
Cambridge
UK

Roberto A. Rocha

Partners Healthcare System, Inc.
Boston, MA
USA

John F. Roddick

Flinders University
Adelaide, SA
Australia

Thomas Roelleke

Queen Mary University of London
London
UK

Didier Roland

University of Namur
Namur
Belgium

Oscar Romero

Polytechnic University of Catalonia
Barcelona
Spain

Rafael Romero

University of Alicante
Alicante
Spain

Timothy Roscoe

ETH Zurich
Zurich
Switzerland

Kenneth A. Ross

Columbia University
New York, NY
USA

Prasan Roy

Aster Data Systems, Inc.
Redwood City, CA
USA

Yong Rui

Microsoft China R&D Group
Redmond, WA
USA

Dan Russler

Oracle Health Sciences
Redwood Shores, CA
USA

Michael Rys

Microsoft Corporation
Sammamish, WA
USA

Giovanni Maria Sacco

University of Torino
Torino
Italy

Simonas Šaltenis

Aalborg University
Aalborg
Denmark

Kenneth Salem

University of Waterloo
Waterloo, ON
Canada

George Samaras

University of Cyprus
Nicosia
Cyprus

Giuseppe Santucci

University of Rome
Roma
Italy

Maria Luisa Sapino

University of Turin
Turin
Italy

Sunita Sarawagi

IIT Bombay
Mumbai
India

Anatol Sargin

University of Augsburg
Augsburg
Germany

Kai-Uwe Sattler

Technical University of Ilmenau
Ilmenau
Germany

Monica Scannapieco

University of Rome
Rome
Italy

Matthias Schäfer

University of Konstanz
Konstanz
Germany

Sebastian Schaffert

Salzburg Research
Salzburg
Austria

Ralf Schenkel

Max-Planck Institute for Informatics
Saarbrücken
Germany

Raimondo Schettini

University of Milano-Bicocca
Milan
Italy

Peter Scheuermann

Northwestern University
Evanston, IL
USA

Ulrich Schiel

Federal University of Campina Grande
Campina Grande
Brazil

Markus Schneider

University of Florida
Gainesville, FL
USA

Marc H. Scholl

University of Konstanz
Konstanz
Germany

Michel Scholl

Cedric-CNAM
Paris
France

Tobias Schreck

Darmstadt University of Technology
Darmstadt
Germany

Michael Schrefl

University of Linz
Linz
Austria

Matthias Schubert

Ludwig-Maximilians-University
Munich
Germany

Heiko Schuldt

University of Basel
Basel
Switzerland

Heidrun Schumann

University of Rostock
Rostock
Germany

Felix Schwagereit

University of Koblenz-Landau
Koblenz
Germany

Nicole Schweikardt

Johann Wolfgang Goethe-University
Frankfurt
Germany

Fabrizio Sebastiani

The Italian National Research Council
Pisa
Italy

Nicu Sebe

University of Amsterdam
Amsterdam
The Netherlands
University of Trento
Trento
Italy

Monica Sebillo

University of Salerno
Salerno
Italy

Thomas Seidl

RWTH Aachen University
Aachen
Germany

Manuel Serrano

University of Castilla – La Mancha
Ciudad Real
Spain

Amnon Shabo (Shvo)
IBM Research Lab-Haifa
Haifa
Israel

Mehul A. Shah
HP Labs
Palo Alto, CA
USA

Nigam Shah
Stanford University
Stanford, CA
USA

Cyrus Shahabi
University of Southern California
Los Angeles, CA
USA

Jayavel Shanmugasundaram
Yahoo Research!
Santa Clara, CA
USA

Marc Shapiro
INRIA Paris-Rocquencourt and LIP6
Paris
France

Mohamed A. Sharaf
University of Toronto
Toronto, ON
Canada

Mehdi Sharifzadeh
Google
Santa Monica, CA
USA

Jayant Sharma
Oracle Corporation
Nashua, NH
USA

Guy Sharon
IBM Research Labs-Haifa
Haifa
Israel

Dennis Shasha
New York University
New York, NY
USA

Carpendale Sheelagh
University of Calgary
Calgary, AB
Canada

Shashi Shekhar
University of Minnesota
Minneapolis, MN
USA

Dou Shen
Microsoft Corporation
Redmond, WA
USA

Heng Tao Shen
The University of Queensland
Brisbane, QLD
Australia

Jialie Shen
Singapore Management University
Singapore
Singapore

Rao Shen
Yahoo!
Sunnyvale, CA
USA

Xuehua Shen
Google, Inc.
Mountain View, CA
USA

Frank Y. Shih
New Jersey Institute of Technology
Newark, NJ
USA

Arie Shoshani
Lawrence Berkeley National Laboratory
Berkeley, CA
USA

Pavel Shvaiko

University of Trento
Trento
Italy

Wolf Siberski

University of Hannover
Hannover
Germany

Ronny Siebes

VU University Amsterdam
Amsterdam
The Netherlands

Adam Silberstein

Yahoo! Research Silicon Valley
Santa Clara, CA
USA

Sonia Fernandes Silva

Etruria Telematica Srl
Siena
Italy

Fabrizio Silvestri

ISTI-CNR
Pisa
Italy

Alkis Simitzis

IBM Almaden Research Center
San Jose, CA
USA

Simeon J. Simoff

University of Western Sydney
Sydney, NSW
Australia

Radu Sion

Stony Brook University
Stony Brook, NY
USA

Mike Sips

Stanford University
Stanford, CA
USA

Cristina Sirangelo

University of Edinburgh
Edinburgh
UK

Yannis Sismanis

IBM Almaden Research Center
Almaden, CA
USA

Spiros Skiadopoulos

University of Peloponnese
Tripoli
Greece

Richard T. Snodgrass

University of Arizona
Tucson, AZ
USA

Cees Snoek

University of Amsterdam
Amsterdam
The Netherlands

Il-Yeol Song

Drexel University
Philadelphia, PA
USA

Ruihua Song

Microsoft Research Asia
Beijing
China

Stefano Spaccapietra

EPFL
Lausanne
Switzerland

Greg Speegle

Baylor University
Waco, TX
USA

Padmini Srinivasan

The University of Iowa
Iowa City, IA
USA

Venkat Srinivasan

Virginia Tech
Blacksburg, VA
USA

Divesh Srivastava

AT&T Labs–Research
Florham Park, NJ
USA

Steffen Staab

University of Koblenz-Landau
Koblenz
Germany

Maarten van Steen

VU University
Amsterdam
The Netherlands

Constantine Stephanidis

Foundation for Research and Technology – Hellas
(FORTH)
Heraklion
Greece

Robert Stevens

University of Manchester
Manchester
UK

Andreas Stoffel

University of Konstanz
Konstanz
Germany

Michael Stonebraker

Massachusetts Institute of Technology
Cambridge, MA
USA

Umberto Straccia

The Italian National Research Council
Pisa
Italy

Martin J. Strauss

University of Michigan
Ann Arbor, MI
USA

Diane M. Strong

Worcester Polytechnic Institute
Worcester, MA
USA

Jianwen Su

University of California-Santa Barbara
Santa Barbara, CA
USA

Kazimierz Subieta

Polish-Japanese Institute of Information Technology
Warsaw
Poland

V. S. Subrahmanian

University of Maryland
College Park, MD
USA

Dan Suci

University of Washington
Seattle, WA
USA

S. Sudarshan

Indian Institute of Technology
Bombay
India

Torsten Suel

Yahoo! Research
Sunnyvale, CA
USA

Jian-Tao Sun

Microsoft Research Asia
Beijing
China

Subhash Suri

University of California-Santa Barbara
Santa Barbara, CA
USA

Stefan Tai

University of Karlsruhe
Karlsruhe
Germany

Kian-Lee Tan

National University of Singapore
Singapore
Singapore

Pang-Ning Tan

Michigan State University
East Lansing, MI
USA

Wang-Chiew Tan

University of California-Santa Cruz
Santa Cruz
CA, USA

Letizia Tanca

Politecnico di Milano University
Milan
Italy

Lei Tang

Arizona State University
Tempe, AZ
USA

Wei Tang

Teradata Corporation
El Segundo, CA
USA

Egemen Tanin

University of Melbourne
Melbourne, VIC
Australia

Val Tannen

University of Pennsylvania
Philadelphia, PA
USA

Abdullah Uz Tansel

Baruch College – CUNY
New York, NY
USA

Yufei Tao

Chinese University of Hong Kong
Hong Kong
China

Sandeep Tata

IBM Almaden Research Center
San Jose, CA
USA

Nesime Tatbul

ETH Zurich
Zurich
Switzerland

Christophe Taton

INPG – INRIA
Grenoble
France

Paolo Terenziani

University of Turin
Turin
Italy

Evimaria Terzi

IBM Almaden Research Center
San Jose, CA
USA

Bernhard Thalheim

Christian-Albrechts University Kiel
Kiel
Germany

Martin Theobald

Stanford University
Stanford, CA
USA

Sergios Theodoridis

University of Athens
Athens
Greece

Yannis Theodoridis

University of Piraeus
Piraeus
Greece

Alexander Thomasian

Thomasian and Associates
Pleasantville, NY
USA

Bhavani Thuraisingham

The University of Texas at Dallas
Richardson, TX
USA

Srikanta Tirthapura

Iowa State University
Ames, IA
USA

Wee Hyong Tok

National University of Singapore
Singapore
Singapore

David Toman

University of Waterloo
Waterloo, ON
Canada

Frank Wm. Tompa

University of Waterloo
Waterloo, ON
Canada

Rodney Topor

Griffith University
Nathan, QLD
Australia

Riccardo Torlone

University of Rome
Rome
Italy

Kristian Torp

Aalborg University
Aalborg
Denmark

Nicola Torpei

University of Florence
Florence
Italy

Nerius Tradišauskas

Aalborg University
Aalborg
Denmark

Goce Trajcevski

Northwestern University
Evanston, IL
USA

Peter Triantafyllou

University of Patras
Rio Patras
Greece

Silke Trißl

Humboldt University of Berlin
Berlin
Germany

Andrew Trotman

University of Otago
Dunedin
New Zealand

Juan Trujillo

University of Alicante
Alicante
Spain

Theodora Tsirikika

Center for Mathematics and Computer Science
Amsterdam
The Netherlands

Vassilis J. Tsotras

University of California-Riverside
Riverside, CA
USA

Peter A. Tucker

Whitworth University
Spokane, WA
USA

Anthony K. H. Tung

National University of Singapore
Singapore
Singapore

Theodoros Tzouramanis

University of the Aegean
Salmos
Greece

Antti Ukkonen

Helsinki University of Technology
Helsinki
Finland

Mollie Ullman-Cullere

Harvard Medical School
Boston, MA
USA

Antony Unwin

Augsburg University
Augsburg
Germany

Ali Ünlü

University of Augsburg
Augsburg
Germany

Susan D. Urban

Texas Tech University
Lubbock, TX
USA

Jaideep Vaidya

Rutgers University
Newark, NJ
USA

Shivakumar Vaithyanathan

IBM Almaden Research Center
San Jose, CA
USA

Athena Vakali

Aristotle University
Thessaloniki
Greece

Patrick Valduriez

INRIA and LINA
Nantes
France

Christelle Vangenot

EPFL
Lausanne
Switzerland

Stijn Vansummeren

Hasselt University and Transnational University
of Limburg
Diepenbeek
Belgium

Vasilis Vassalos

Athens University of Economics and Business
Athens
Greece

Michael Vassilakopoulos

University of Central Greece
Lamia
Greece

Panos Vassiliadis

University of Ioannina
Ioannina
Greece

Michalis Vazirgiannis

Athens University of Economics & Business
Athens
Greece

Olga Vechtomova

University of Waterloo
Waterloo, ON
Canada

Erik Vee

Yahoo! Research
Silicon Valley, CA
USA

Jari Veijalainen

University of Jyväskylä
Jyväskylä
Finland

Yannis Velegarakis

University of Trento
Trento
Italy

Suresh Venkatasubramanian

University of Utah
Salt Lake City, UT
USA

Rossano Venturini

University of Pisa
Pisa
Italy

Victor Vianu

University of California-San Diego
La Jolla, CA
USA

K. Vidyasankar

Memorial University of Newfoundland
St. John's, NL
Canada

Millist Vincent

University of South Australia
Adelaide, SA
Australia

Giuliana Vitiello

University of Salerno
Salerno
Italy

Michail Vlachos

IBM T.J. Watson Research Center
Hawthorne, NY
USA

Agnès Voisard

Fraunhofer Institute for Software and Systems
Engineering (ISST)
Berlin
Germany

Kaladhar Voruganti

Network Appliance
Sunnyvale, CA
USA

Gottfried Vossen

University of Münster
Münster
Germany

Kenichi Wada

Hitachi Limited
Tokyo
Japan

Feng Wang

City University of Hong Kong
Hong Kong
China

Jianyong Wang

Tsinghua University
Beijing
China

Jun Wang

Queen Mary University of London
London
UK

Meng Wang

Microsoft Research Asia
Beijing
China

X. Sean Wang

University of Vermont
Burlington, VT
USA

Xin-Jing Wang

Microsoft Research Asia
Beijing
China

Matthew O. Ward

Worcester Polytechnic Institute
Worcester, MA
USA

Segev Wasserkrug

IBM Research
Haifa
Israel

Hans Weda

Philips Research
Eindhoven
The Netherlands

Gerhard Weikum

Max-Planck Institute for Informatics
Saarbrücken
Germany

Michael Weiner

Indiana University School of Medicine
Indianapolis, IN
USA

Michael Weiss

Carleton University
Ottawa, ON
Canada

Ji-Rong Wen

Microsoft Research Asia
Beijing
China

Chunhua Weng

Columbia University
New York, NY
USA

Mathias Weske

University of Potsdam
Potsdam
Germany

Thijs Westerveld

Teezir Search Solutions
Ede
The Netherlands

Karl Wiggisser

University of Klagenfurt
Klagenfurt
Austria

Jef Wijsen

University of Mons-Hainaut
Mons
Belgium

Mark D. Wilkinson

University of British Columbia
Vancouver, BC
Canada

Graham Wills

SPSS Inc.
Chicago, IL
USA

Ian H. Witten

University of Waikato
Hamilton
New Zealand

Kent Wittenburg

Mitsubishi Electric Research Laboratories, Inc.
Cambridge, MA
USA

Eric Wohlstadter

University of British Columbia
Vancouver, BC
Canada

Dietmar Wolfram

University of Wisconsin-Milwaukee
Milwaukee, WI
USA

Ouri Wolfson

University of Illinois at Chicago
Chicago, IL
USA

Janette Wong

IBM Canada Ltd.
Markham, ON
Canada

Raymond Chi-Wing Wong

Hong Kong University of Science and Technology
Hong Kong
China

Peter T. Wood

Birkbeck, University of London
London
UK

David Woodruff

IBM Almaden Research Center
San Jose, CA
USA

Marcel Worring

University of Amsterdam
Amsterdam
The Netherlands

Adam Wright

Partners HealthCare
Boston, MA
USA

Yuqing Wu

Indiana University
Bloomington, IN
USA

Alex Wun

University of Toronto
Toronto, ON
Canada

Ming Xiong

Bell Labs
Murray Hill, NJ
USA

Guandong Xu

Victoria University
Melbourne, VIC
Australia

Hua Xu

Columbia University
New York, NY
USA

Jun Yan

Microsoft Research Asia
Haidian
China

Xifeng Yan

IBM T. J. Watson Research Center
Hawthorne, NY
USA

Jun Yang

Duke University
Durham, NC
USA

Li Yang

Western Michigan University
Kalamazoo, MI
USA

Ming-Hsuan Yang

University of California at Merced
Merced, CA
USA

Seungwon Yang

Virginia Tech
Blacksburg, VA
USA

Yu Yang

City University of Hong Kong
Hong Kong
China

Yun Yang

Swinburne University of Technology
Melbourne, VIC
Australia

Yong Yao

Cornell University
Ithaca, NY
USA

Mikalai Yatskevich

University of Trento
Trento
Italy

Hiroshi Yoshida

Fujitsu Limited
Yokohama
Japan

Masatoshi Yoshikawa

University of Kyoto
Kyoto
Japan

Matthew Young-Lai

Sybase iAnywhere
Waterloo, ON
Canada

Cong Yu

Yahoo! Research
New York, NY
USA

Hwanjo Yu

University of Iowa
Iowa City, IA
USA

Jeffrey Xu Yu

Chinese University of Hong Kong
Hong Kong
China

Philip S. Yu

IBM T.J. Watson Research Center
Yorktown Heights, NY
USA

Ting Yu

North Carolina State University
Raleigh, NC
USA

Vladimir Zadorozhny

University of Pittsburgh
Pittsburgh, PA
USA

Ilya Zaihrayeu

University of Trento
Trento
Italy

Mohammed J. Zaki

Rensselaer Polytechnic Institute
Troy, NY
USA

Carlo Zaniolo

University of California-Los Angeles
Los Angeles, CA
USA

Hugo Zaragoza

Yahoo! Research
Barcelona
Spain

Stan Zdonik

Brown University
Providence, RI
USA

Demetrios Zeinalipour-Yazti

University of Cyprus
Nicosia
Cyprus

Hans Zeller

Hewlett-Packard Laboratories
Palo Alto, CA
USA

Pavel Zezula

Masaryk University
Brno
Czech Republic

ChengXiang Zhai

University of Illinois at Urbana-Champaign
Urbana, IL
USA

Aidong Zhang

State University of New York at Buffalo
Buffalo, NY
USA

Benyu Zhang

Microsoft Research Asia
Beijing
China

Donghui Zhang

Northeastern University
Boston, MA
USA

Ethan Zhang

University of California-Santa Cruz and Yahoo! Inc.
Santa Cruz, CA
USA

Jin Zhang

University of Wisconsin-Milwaukee
Milwaukee, WI
USA

Kun Zhang

Xavier University of Louisiana
New Orleans, LA
USA

Lei Zhang

Microsoft Research Asia
Beijing
China

Li Zhang

Peking University
Beijing
China

Qing Zhang

The Australian e-health Research Center
Brisbane, QLD
Australia

Rui Zhang

University of Melbourne
Melbourne, VIC
Australia

Yanchun Zhang

Victoria University
Melbourne, VIC
Australia

Yi Zhang

University of California-Santa Cruz
Santa Cruz, CA
USA

Yue Zhang

University of Pittsburgh
Pittsburgh, PA
USA

Zhen Zhang

University of Illinois at Urbana-Champaign
Urbana, IL
USA

Feng Zhao

Microsoft Research
Redmond, WA
USA

Ying Zhao

Tsinghua University
Beijing
China

Baihua Zheng

Singapore Management University
Singapore
Singapore

Yi Zheng

University of Ontario Institute of
Technology (UOIT)
Oshawa, ON
Canada

Jingren Zhou

Microsoft Research
Redmond, WA
USA

Li Zhou

Partners HealthCare System Inc. and Harvard
Medical School
Boston, MA
USA

Zhi-Hua Zhou

Nanjing University
Nanjing
China

Huaiyu Zhu

IBM Almaden Research Center
San Jose, CA
USA

Xingquan Zhu

Florida Atlantic University
Boca Raton, FL
USA

Cai-Nicolas Ziegler

Siemens AG
Munich
Germany

Hartmut Ziegler

University of Konstanz
Konstanz
Germany

Arthur Zimek

Ludwig-Maximilians University of Munich
Munich
Germany

Esteban Zimányi

Free University of Brussels
Brussels
Belgium

