

Preface

Within the last few years Data Warehousing and Knowledge Discovery technology has established itself as a key technology for enterprises that wish to improve the quality of the results obtained from data analysis, decision support, and the automatic extraction of knowledge from data.

The Fourth International Conference on Data Warehousing and Knowledge Discovery (DaWaK 2002) continues a series of successful conferences dedicated to this topic. Its main objective is to bring together researchers and practitioners to discuss research issues and experience in developing and deploying data warehousing and knowledge discovery systems, applications, and solutions.

The conference focuses on the logical and physical design of data warehousing and knowledge discovery systems. The scope of the papers covers the most recent and relevant topics in the areas of association rules, clustering, Web mining, security, data mining techniques, data cleansing, applications, data warehouse design and maintenance, and OLAP. These proceedings contain the technical papers selected for presentation at the conference.

We received more than 100 papers from over 20 countries, and the program committee finally selected 32 papers. The conference program included one invited talk: “Text Mining Applications of a Shallow Parser” by Walter Daelemans, University of Antwerp, Belgium.

We would like to thank the DEXA 2002 Workshop General Chair (Roland Wagner) and the organizing committee of the 13th International Conference on Database and Expert Systems Applications (DEXA 2002) for their support and their cooperation. Many thanks go to Gabriela Wagner for providing a great deal of assistance as well as to Andreas Dreiling for administrating the conference management software. We are very indebted to all program committee members and external reviewers who reviewed the papers very carefully and in a timely manner. We would also like to thank all the authors who submitted their papers to DaWaK 2002; they provided us with an excellent technical program.

September 2002

Yahiko Kambayashi
Werner Winiwarter
Masatoshi Arikawa

Program Committee

General Chair

Yahiko Kambayashi, Kyoto University, Japan

Program Chairs

Werner Winiwarter, University of Vienna, Austria

Masatoshi Arikawa, University of Tokyo, Japan

Program Committee

Tatsuya Akutsu, Kyoto University, Japan

Hiroki Arimura, Kyushu University, Japan

Mike Bain, The University of New South Wales, Australia

Elena Baralis, Politecnico di Torino, Italy

Stefan Berchtold, stb software technology beratung gmbh, Germany

Jorge Bernardino, Polytechnic of Coimbra, Portugal

Anjali Bhargava, TRW, USA

Bharat K. Bhargava, Purdue University, USA

Sourav S. Bhowmick, Nanyang Technological University, Singapore

Ulrich Bodenhofer, Software Competence Center Hagenberg, Austria

Christian Böhm, Ludwig-Maximilians-University of Munich, Germany

Luca Cabibbo, Università degli Studi Roma Tre, Italy

Murray Campbell, IBM TJ Watson Research Center, USA

Tiziana Catarci, Università degli Studi di Roma “La Sapienza”, Italy

Peter Chamoni, Gerhard-Mercator-University Duisburg, Germany

Arbee L. P. Chen, National Dong Hwa University, Taiwan

Janet Chen, Philips Research East Asia, Taiwan

Ming-Syan Chen, National Taiwan University, Taiwan

Sunil Choenni, Nyenrode University/ University of Twente, The Netherlands

Vic Ciesielski, RMIT University, Australia

Walter Daelemans, University of Antwerp, Belgium

Vasant Dhar, New York University, USA

Luc De Raedt, Albert-Ludwigs-University of Freiburg, Germany

Gillian Dobbie, The University of Auckland, New Zealand

Guozhu Dong, Wright State University, USA

Saso Dzeroski, J. Stefan Institute, Slovenia

Wolfgang Essmayr, Software Competence Center Hagenberg, Austria

Martin Ester, Ludwig-Maximilians-University of Munich, Germany

Vladimir Estivill-Castro, The University of Newcastle, Australia

Wenfei Fan, Temple University, USA

Li Min Fu, University of Florida, USA

Jean-Gabriel Ganascia, Université Paris VI, France

Minos Garofalakis, Bell Laboratories, USA

Ashish Ghosh, Indian Statistical Institute, India

Ananth Grama, Purdue University, USA

Marko Grobelnik, J. Stefan Institute, Slovenia

Robert Grossman, University of Illinois at Chicago, USA
Daniel Gruhl, IBM Almaden Research Center, USA
Jerzy Grzymala-Busse, University of Kansas, USA
Ajay Gupta, Western Michigan University, USA
S. K. Gupta, IIT Delhi, India
Marc Gyssens, University of Limburg, Belgium
Mirsad Hadzikadic, University of North Carolina at Charlotte, USA
Joachim Hammer, University of Florida, USA
Jiawei Han, Simon Fraser University, Canada
David Hayes, San Jose State University, USA
Abdelsalam Helal, University of Florida, USA
Tu Bao Ho, Japan Advanced Institute of Science and Technology, Japan
Se June Hong, IBM TJ Watson Research Center, USA
Hasan Jamil, Mississippi State University, USA
Samuel Kaski, Helsinki University of Technology, Finland
Hiroyuki Kawano, Kyoto University, Japan
Larry Kerschberg, George Mason University, USA
Masaru Kitsuregawa, University of Tokyo, Japan
Mika Klemettinen, Nokia Research Center, Finland
Yves Kodratoff, LRI, France
Jan Komorowski, Norwegian University of Science and Technology, Norway
Guanling Lee, National Dong Hwa University, Taiwan
Qing Li, City University of Hong Kong, China
Leonid Libkin, Bell Laboratories, USA
Tsau Young Lin, San Jose State University, USA
Tok Wang Ling, National University of Singapore, Singapore
Bing Liu, National University of Singapore, Singapore
Sanjay Kumar Madria, University of Missouri-Rolla, USA
Dieter Merkl, Vienna University of Technology, Austria
Sushmita Mitra, Indian Statistical Institute, India
Dunja Mladenic, J. Stefan Institute, Slovenia and Carnegie Mellon University, USA
Mukesh Mohania, IBM India Research Lab, India
Shinichi Morishita, University of Tokyo, Japan
C. A. Murthy, Indian Statistical Institute, India
Wee Keong Ng, Nanyang Technological University, Singapore
Masayuki Numao, Tokyo Institute of Technology, Japan
Sankar Kumar Pal, Indian Statistical Institute, India
Dimitris Papadias, Hong Kong University of Science and Technology, China
Stefano Paraboschi, Politecnico di Milano, Italy
D. Stott Parker, UCLA, USA
Clara Pizzuti, ISI-CNR, Italy
Lech Polkowski, Warsaw University of Technology, Poland
David Powers, The Flinders University of South Australia, Australia
Mohamed Quafafou, Université de Nantes, France
Chris Rainsford, DSTO, Australia
Zbigniew W. Ras, University of North Carolina, USA
Rajeev Rastogi, Bell Laboratories, USA

Vic J. Rayward-Smith, University of East Anglia, UK
Elke A. Rundensteiner, Worcester Polytechnic Institute, USA
Domenico Saccà, Università della Calabria, Italy
N. L. Sarda, IIT Bombay, India
Michael Schrefl, Johannes Kepler University of Linz, Austria
Steffen Schulze-Kremer, RZPD, Germany
Shashi Shekhar, University of Minnesota, USA
Kyuseok Shim, Seoul National University, Korea
Andrzej Skowron, Warsaw University, Poland
Il-Yeol Song, Drexel University, USA
Bala Srinivasan, Monash University, Australia
Biplav Srivastava, IBM India Research Lab, India
Einoshin Suzuki, Yokohama National University, Japan
Ernest Teniente, Universitat Politècnica de Catalunya, Spain
Takao Terano, University of Tsukuba, Japan
A Min Tjoa, Vienna University of Technology, Austria
Hannu T. T. Toivonen, University of Helsinki and Nokia Research Center, Finland
Riccardo Torlone, Università degli Studi Roma Tre, Italy
Pauray S. M. Tsai, Ming Hsin Institute of Technology, Taiwan
Vassilios Verykios, Drexel University, USA
Sergio Viademonte, Monash University, Australia
Takashi Washio, Osaka University, Japan
Graham Williams, CSIRO, Australia
Gerry Wolff, University of Wales at Bangor, UK
Xindong Wu, University of Vermont, USA
Yiyu Yao, University of Regina, Canada
Show-Jane Yen, Fu Jen Catholic University, Taiwan
Kazumasa Yokota, Okayama Prefectural University, Japan
Ning Zhong, Maebashi Institute of Technology, Japan

External Reviewers

Periklis Andritsos, University of Toronto, Canada
Chuan Heng Ang, National University of Singapore, Singapore
Manish Bhide, IBM India Research Lab, India
Francesco Buccafurri, University of Reggio Calabria, Italy
Hung-Chen Chen, National Tsing Hua University, Taiwan
Chung-Wen Cho, National Tsing Hua University, Taiwan
Filippo Furfaro, University of Calabria, Italy
Paolo Garza, Politecnico di Torino, Italy
Vivekanand Gopalkrishnan, City University of Hong Kong, China
Johannes Huber, Software Competence Center Hagenberg, Austria
Torgeir Hvidsten, NTNU, Norway
Eddie Chia-Hsiung Lee, National Tsing Hua University, Taiwan
Yue-Shi Lee, Ming Chuan University, Taiwan
Oscar Mangisengi, Software Competence Center Hagenberg, Austria
Herman Midelfart, NTNU, Norway
Iko Pramudiono, University of Tokyo, Japan
Günter Preuner, Johannes Kepler University of Linz, Austria
Takahiko Shintani, Hitachi, Ltd., Japan
Katsumi Takahashi, NTT, Japan
Yufei Tao, HKUST, China
Giorgio Terracina, University of Reggio Calabria, Italy
Thomas Thalhammer, Johannes Kepler University of Linz, Austria
Jun Zhang, HKUST, China

Data Warehousing and Knowledge Discovery
4th International Conference, DaWaK 2002,
Aix-en-Provence, France, September 4-6, 2002.

Proceedings

Kambayashi, Y.; Winiwarter, W.; Arikawa, M. (Eds.)

2002, XIII, 339 p., Softcover

ISBN: 978-3-540-44123-6