

Commenced Publication in 1973

Founding and Former Series Editors:

Gerhard Goos, Juris Hartmanis, and Jan van Leeuwen

Editorial Board

David Hutchison

Lancaster University, UK

Takeo Kanade

Carnegie Mellon University, Pittsburgh, PA, USA

Josef Kittler

University of Surrey, Guildford, UK

Jon M. Kleinberg

Cornell University, Ithaca, NY, USA

Alfred Kobsa

University of California, Irvine, CA, USA

Friedemann Mattern

ETH Zurich, Switzerland

John C. Mitchell

Stanford University, CA, USA

Moni Naor

Weizmann Institute of Science, Rehovot, Israel

Oscar Nierstrasz

University of Bern, Switzerland

C. Pandu Rangan

Indian Institute of Technology, Madras, India

Bernhard Steffen

University of Dortmund, Germany

Madhu Sudan

Massachusetts Institute of Technology, MA, USA

Demetri Terzopoulos

University of California, Los Angeles, CA, USA

Doug Tygar

University of California, Berkeley, CA, USA

Gerhard Weikum

Max-Planck Institute of Computer Science, Saarbruecken, Germany

Qing Li Ling Feng Jian Pei
Sean X. Wang Xiaofang Zhou
Qiao-Ming Zhu (Eds.)

Advances in Data and Web Management

Joint International Conferences, APWeb/WAIM 2009
Suzhou, China, April 2-4, 2009
Proceedings

Volume Editors

Qing Li

City University of Hong Kong, Department of Computer Science
Kowloon, Hong Kong, China

E-mail: itqli@cityu.edu.hk

Ling Feng

Tsinghua University, Department of Computer Science & Technology
Beijing 100084, China

E-mail: fengling@tsinghua.edu.cn

Jian Pei

Simon Fraser University, School of Computing Science
Burnaby, BC V5A 1S6, Canada

E-mail: jpei@cs.sfu.ca

Sean X. Wang

University of Vermont, Department of Computer Science
Burlington, VT 05405, USA

E-mail: sean.wang@uvm.edu

Xiaofang Zhou

The University of Queensland, School of ITEE
Brisbane, QLD 4072, Australia

E-mail: zxf@itee.uq.edu.au

Qiao-Ming Zhu

Soochow University, School of Computer Science & Technology
Suzhou, Jiangsu 215006, China

E-mail: qmzhu@suda.edu.cn

Library of Congress Control Number: 2009922514

CR Subject Classification (1998): H.2-5, C.2, J.1, K.4

LNCS Sublibrary: SL 3 – Information Systems and Application,
incl. Internet/Web and HCI

ISSN 0302-9743

ISBN-10 3-642-00671-X Springer Berlin Heidelberg New York

ISBN-13 978-3-642-00671-5 Springer Berlin Heidelberg New York

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, re-use of illustrations, recitation, broadcasting, reproduction on microfilms or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the German Copyright Law of September 9, 1965, in its current version, and permission for use must always be obtained from Springer. Violations are liable to prosecution under the German Copyright Law.

springer.com

© Springer-Verlag Berlin Heidelberg 2009
Printed in Germany

Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India
Printed on acid-free paper SPIN: 12632534 06/3180 5 4 3 2 1 0

Preface

APWeb and WAIM are two leading international conferences on the research, development, and applications of Web technologies, database systems, information management and software engineering, with a focus on the Asia-Pacific region. The previous APWeb conferences were held in Beijing (1998), Hong Kong (1999), Xi'an (2000), Changsha (2001), Xi'an (2003), Hangzhou (2004), Shanghai (2005), Harbin (2006), Huangshan (2007), and Shenyang (2008); and the previous WAIM conferences were held in Shanghai (2000), Xi'an (2001), Beijing (2002), Chengdu (2003), Dalian (2004), Hangzhou (2005), Hong Kong (2006), Huangshan (2007), and Zhangjiajie (2008). For the second time, APWeb and WAIM were combined to foster closer collaboration and research idea sharing, and were held immediately after IEEE ICDE 2009 in Shanghai.

This high-quality program would not have been possible without the authors who chose APWeb+WAIM as a venue for their publications. Out of 189 submitted papers from 21 countries and regions, including Australia, Austria, Bengal, Brazil, Canada, France, Greece, Hong Kong, India, Iran, Japan, Korea, Macau, Mainland China, Myanmar, The Netherlands, Norway, Taiwan, Thailand, UK, and USA, we selected 42 full papers and 26 short papers for publication. The acceptance rate for regular full papers is 22%. The contributed papers addressed a wide scope of issues in the fields of Web-age information management and advanced applications, including Web data mining, knowledge discovery from streaming data, query processing, multidimensional data analysis, data management support to advanced applications, etc.

A conference like this can only succeed as a team effort. We want to thank the Program Committee members and the reviewers for their invaluable efforts. Special thanks to the local Organizing Committee headed by Jiwen Yang and Liusheng Huang. Many thanks also go to the Workshop Co-chairs (Lei Chen and Chengfei Liu), Tutorial Co-chairs (Liu Wenyin and Vivek Gopalkrishnan), Publicity Co-chairs (Lei Yu and Baihua Zheng), and Finance Co-chairs (Howard Leung and Genrong Wang). Last but not least, we are grateful for the hard work and effort of our webmaster (Zhu Fei, Tony), and to the generous sponsors who enabled the smooth running of the conference.

We hope that you enjoy the proceedings of APWeb+WAIM 2009.

April 2009

Qing Li
Ling Feng
Jian Pei
Sean X. Wang
Xiaofang Zhou
Qiaoming Zhu

Organization

APWeb+WAIM 2009 was organized by Soochow University, China.

Organizing Committee

Conference Co-chairs

Sean X. Wang	University of Vermont, USA
Xiaofang Zhou	University of Queensland, Australia
Qiaoming Zhu	Soochow University, China

Program Committee Co-chairs

Qing Li	City University of Hong Kong, China
Ling Feng	Tsinghua University, China
Jian Pei	Simon Fraser University, Canada

Local Organization Co-chairs

Jiwen Yang	Soochow University, China
Liusheng Huang	University of Science and Technology, China

Workshop Co-chairs

Lei Chen	Hong Kong University of Science and Technology, China
Chengfei Liu	Swinburne University of Technology, Australia

Tutorial/Panel Co-chairs

Wenyin Liu	City University of Hong Kong, China
Vivek Gopalkrishnan	Nanyang Technological University, Singapore

Industrial Chair

Hui Xue	Soochow University, China
---------	---------------------------

Publicity Co-chairs

Lei Yu	State University of New York at Binghamton, USA
Baihua Zheng	Singapore Management University, Singapore

Finance Co-chairs

Howard Leung
Genrong Wang

City University of Hong Kong, China
Soochow University, China

CCF DB Society Liaison

Xiaofeng Meng

Renmin University of China, China

WISE Society Liaison

Yanchun Zhang

Victoria University, Australia

Webmaster

Fei Zhu

Soochow University, China

Program Committee

Aijun An	York University, Canada
James Bailey	University of Melbourne, Australia
Ladjel Bellatreche	ENSMA - Poitiers University, France
Rafae Bhatti	IBM Almaden Research Center, USA
Sourav Bhowmick	Nanyang Technological University, Singapore
Haiyun Bian	Wright State University, USA
Klemens Boehm	University of Karlsruhe, Germany
Athman Bouguettaya	Virginia Polytechnic Institute and State University, USA
Stephane Bressan	National University of Singapore, Singapore
Ji-Won Byun	ORACLE, USA
Jinli Cao	La Trobe University, Australia
Badrish Chandramouli	Duke University, USA
Akmal Chaudhri	IBM DeveloperWorks, USA
Enhong Chen	University of Science and Technology of China, China
Jian Chen	South China University of Technology, China
Lei Chen	Hong Kong University of Science and Technology, China
Qiming Chen	Hewlett-Packard Laboratories, USA
Yi Chen	Arizona State University, USA
Hong Cheng	University of Illinois at Urbana-Champaign, USA
Reynold Cheng	Hong Kong Polytechnic University, China
David Cheung	The University of Hong Kong, China
Dickson Chiu	Dickson Computer Systems, Hong Kong, China
Byron Choi	Hong Kong Baptist University, China
Gao Cong	Microsoft Research Asia, China

Bin Cui	Peking University, China
Alfredo Cuzzocrea	University of Calabria, Italy
Guozhu Dong	Wright State University, USA
Wenliang Du	Syracuse University, USA
Xiaoyong Du	Renmin University of China, China
Jianhua Feng	Tsinghua University, China
Yaokai Feng	Kyushu University, Japan
Eduardo Fernandez	Florida Atlantic University, USA
Ada Fu	The Chinese University of Hong Kong, China
Benjamin Fung	Concordia University, Canada
Gabriel Fung	The University of Queensland, Australia
Byron Gao	University of Wisconsin, USA
Hong Gao	Harbin Institute of Technology, China
Jun Gao	Peking University, China
Yunjun Gao	Singapore Management University, Singapore
Zhiguo Gong	University of Macau, China
Anandha Gopalan	Imperial College, UK
Vivekanand Gopalkrishnan	Nanyang Technological University, Singapore
Guido Governatori	The University of Queensland, Australia
Madhusudhan Govindaraju	State University of New York at Binghamton, USA
Stephane Grumbach	INRIA, France
Ning Gu	Fudan University, China
Giovanna Guerrini	Università di Genova, Italy
Jingfeng Guo	Yanshan University, China
Mohand-Said Hacid	Université Claude Bernard Lyon 1, France
Weihong Han	National Laboratory for Parallel and Distributed Processing, China
Michael Houle	National Institute of Informatics, Japan
Ming Hua	Simon Fraser University, Canada
Xiangji Huang	York University, Canada
Yan Huang	University of North Texas, USA
Ela Hunt	University of Strathclyde, UK
Renato Iannella	National ICT Australia (NICTA), Australia
Yoshiharu Ishikawa	Nagoya University, Japan
Yan Jia	National University of Defence Technology, China
Daxin Jiang	Microsoft Research Asia, China
Ruoming Jin	Kent State University, USA
Panagiotis Kalnis	National University of Singapore, Singapore
Murat Kantarcioglu	UT Dallas, USA
Wee Keong	Nanyang Technological University, Singapore
Markus Kirchberg	Institute for Infocomm Research, A*STAR, Singapore
Hiroyuki Kitagawa	University of Tsukuba, Japan

Flip Korn	AT&T Labs Research, USA
Manolis Koubarakis	National and Kapodistrian University of Athens, Greece
Anne LAURENT	University of Montpellier 2, France
Chiang Lee	National Cheng-Kung University
Dik Lee	Hong Kong University of Science and Technology, China
Wang-Chien Lee	Pennsylvania State University, USA
Yoon-Joon Lee	Korea Advanced Institute of Science and Technology, Korea
Carson Leung	University of Manitoba, Canada
Chen Li	University of California, Irvine, USA
Jinyan Li	Nanyang Technological University, Singapore
Jiuyong Li	University of South Australia, Australia
Quanzhong Li	IBM, USA
Tao Li	Florida International University, USA
Xue Li	The University of Queensland, Australia
Zhanhuai Li	Northeastern Polytechnical University, China
Wenxin Liang	Japan Science and Technology Agency (JST) and CSIC of Tokyo Institute of Technology, Japan
Ee Peng Lim	Nanyang Technological University, Singapore
Chengfei Liu	Swinburne University of Technology, Australia
Hongyan Liu	Tsinghua University, China
Mengchi Liu	Carleton University, Canada
Qing Liu	CSIRO, Australia
Tieyan Liu	Microsoft Research Asia, China
Wei Liu	University of Western Australia, Australia
Weiyi Liu	Yunnan University, China
Jiaheng Lu	University of California, Irvine, USA
Liping Ma	Ballarat University, Australia
Xiaosong Ma	NC State University, USA
Lorenzo Martino	Purdue University, USA
Weiyi Meng	Binghamton University, USA
Xiaofeng Meng	Renmin University of China, China
Miyuki Nakano	University of Tokyo, Japan
Wilfred Ng	Hong Kong University of Science and Technology, China
Anne Ngu	Texas State University, USA
Junfeng Pan	Google, USA
Chaoyi Pang	CSIRO, Australia
Zhiyong Peng	Wuhan University, China
Evaggelia Pitoura	University of Ioannina, Greece
Marc Plantevit	University of Montpellier 2, France
Tieyun Qian	Wuhan University, China
Weining Qian	East China Normal University, China

Wenyu Qu	Tokyo University, Japan
Vijay Raghavan	University of Louisiana at Lafayette, USA
Cartic Ramakrishnan	Wright State University, USA
Keun Ryu	Chungbuk National University, Korea
Monica Scannapieco	ISTAT, Italy
Markus Schneider	University of Florida, USA
Derong Shen	Northeastern University, China
Dou Shen	Microsoft, USA
Heng Tao Shen	University of Queensland, Australia
Jialie Shen	Singapore Management University, Singapore
Timothy Shih	Tamkang University, Taiwan
Youngin Shin	Microsoft, USA
Adam Silberstein	Yahoo, USA
Peter Stanchev	Kettering University, USA
Xiaoping Sun	Chinese Academy of Science, China
Changjie Tang	Sichuan University, China
Jie Tang	Tsinghua University, China
Nan Tang	CWI, The Netherlands
Zhaohui Tang	Microsoft, USA
David Taniar	Monash University, Australia
Yufei Tao	Chinese University of Hong Kong, China
Maguelonne Teisseire	University of Montpellier 2, France
Yunhai Tong	Peking University, China
Yicheng Tu	University of South Florida, USA
Daling Wang	Northeastern University, China
Guoren Wang	Northeastern University, China
Haixun Wang	IBM T. J. Watson Research Center, USA
Hua Wang	University of Southern Queensland, Australia
Jianyong Wang	Tsinghua University, China
Junhu Wang	Griffith University, Australia
Min Wang	IBM T. J. Watson Research Center, USA
Shan Wang	Renmin University of China, China
Tengjiao Wang	Peking University, China
Wei Wang	Fudan University, China
Wei Wang	University of New South Wales, Australia
X. Sean Wang	University of Vermont, USA
Jirong Wen	Microsoft Research Asia, China
Raymond Wong	University of New South Wales, Australia
Raymond Chi-Wing Wong	HKUST, China
Fei Wu	Zhejiang University, China
Weili Wu	The University of Texas at Dallas, USA
Wensheng Wu	IBM, USA
Xintao Wu	University of North Carolina at Charlotte, USA
Yuqing Wu	Indiana University, USA
Zonghuan Wu	University of Louisiana at Lafayette, USA

Jitian Xiao	Edith Cowan University, Australia
Xiaokui Xiao	Chinese University of Hong Kong, China
Hui Xiong	Rutgers University, USA
Wei Xiong	National University of Defense Technology, China
Guandong Xu	Victoria University, Australia
Jianliang Xu	Hong Kong Baptist University, Hong Kong, China
Jun Yan	University of Wollongong, Australia
Xifeng Yan	IBM, China
Chunsheng Yang	NRC, Canada
Jian Yang	Macquarie University, Australia
Shuqiang Yang	National Laboratory for Parallel and Distributed, China
Xiaochun Yang	Northeastern University, China
Jieping Ye	Arizona State University, USA
Laurent Yeh	Prism, France
Ke Yi	Hong Kong University of Technology, China
Jian Yin	Sun Yat-Sen University, China
Cui Yu	Monmouth University, USA
Ge Yu	Northeastern University, China
Jeffrey Yu	Chinese University of Hong Kong, China
Lei Yu	State University of New York at Binghamton, USA
Philip Yu	University of Illinois at Chicago, USA
Xiaohui Yu	York University, Canada
Lihua Yue	Science and Technology University of China, China
Chengqi Zhang	University of Technology, Sydney, Australia
Donghui Zhang	Northeastern University, USA
Qing Zhang	CSIRO, Australia
Rui Zhang	University of Melbourne, Australia
Shichao Zhang	University of Technology, Sydney, Australia
Xiuzhen Zhang	RMIT University, Australia
Yanchun Zhang	Victoria University, Australia
Ying Zhang	University of New South Wales, Australia
Hongkun Zhao	Bloomberg, USA
Yanchang Zhao	University of Technology, Sydney, Australia
Sheng Zhong	State University of New York at Buffalo, USA
Aoying Zhou	East China Normal University, China
Lizhu Zhou	Tsinghua University, China
Shuigeng Zhou	Fudan University, China
Xuan Zhou	CSIRO ICT Centre, Australia
Yongluan Zhou	EPFL, Sweden
Qiang Zhu	University of Michigan, USA
Xingquan Zhu	Florida Atlantic University, USA

External Reviewers

Watve Alok	Guoliang Li	Heiko Schepperle
Mafruzzaman Ashrafi	Yukun Li	Mingsheng Shang
Markus Bestehorn	Zhisheng Li	Damon
Thorben Burghardt	Bing-rong Lin	Sotoudeh-Hosseini
Mustafa Canim	Xingjie Liu	Xiaoxun Sun
Cai Chen	Xumin Liu	MingJian Tang
Rui Chen	Yang Liu	Fadi Tashtoush
Shu Chen	Yintian Liu	Fadi Tashtoush
Xiaoxi Du	Chao Luo	Yuan Tian
Frank Eichinger	Zaki Malik	Hiroyuki Toda
Shi Feng	Massimo Mecella	Puwei Wang
Li zhen Fu	Chibuike Muoh	Wei Wang
Qingsong Guo	Chibuike Muoh	Yousuke Watanabe
Yi Guo	Khanh Nguyen	Yousuke Watanabe
Christopher Healey	Robert Nix	Qi Yu
Raymond Heatherly	Bahadorreza Ofoghi	Ting Yu
Ali Inan	Yoann Pitarch	Kun Yue
Fangjiao Jiang	Yoann Pitarch	Chengyang Zhang
Fangjiao Jiang	Gang Qian	Xiaohui Zhao
Hideyuki Kawashima	Chedi Raissi	Da Zhou
Dashiell Kolbe	Mathieu Roche	Jing Zhou
Lily Li	Paola Salle	
Huajing Li	Guido Sautter	

Table of Contents

Keynotes

Distributed XML Processing	1
<i>M. Tamer Özsu</i>	
Towards Multi-modal Extraction and Summarization of Conversations	2
<i>Raymond Ng</i>	

Query Processing I

Simple but Effective Porn Query Recognition by k-NN with Semantic Similarity Measure	3
<i>Shunkai Fu, Michel C. Desmarais, Bingfeng Pi, Ying Zhou, Weilei Wang, Gang Zou, Song Han, and Xunrong Rao</i>	
Selective-NRA Algorithms for Top-k Queries	15
<i>Jing Yuan, Guang-Zhong Sun, Ye Tian, Guoliang Chen, and Zhi Liu</i>	
Continuous K-Nearest Neighbor Query over Moving Objects in Road Networks	27
<i>Yuan-Ko Huang, Zhi-Wei Chen, and Chiang Lee</i>	
Data Quality Aware Queries in Collaborative Information Systems	39
<i>N.K. Yeganeh, S. Sadiq, K. Deng, and X. Zhou</i>	
Probabilistic Threshold Range Aggregate Query Processing over Uncertain Data	51
<i>Shuxiang Yang, Wenjie Zhang, Ying Zhang, and Xuemin Lin</i>	
Dynamic Data Migration Policies for Query-Intensive Distributed Data Environments	63
<i>Tengjiao Wang, Bishan Yang, Allen Huang, Qi Zhang, Jun Gao, Dongqing Yang, Shiwei Tang, and Jinzhong Niu</i>	

Query Processing II

C-Tree Indexing for Holistic Twig Joins	76
<i>Bo Ning, Chengfei Liu, and Guoren Wang</i>	
Processing XML Keyword Search by Constructing Effective Structured Queries	88
<i>Jianxin Li, Chengfei Liu, Rui Zhou, and Bo Ning</i>	

Representing Multiple Mappings between XML and Relational Schemas for Bi-directional Query Translation	100
<i>Ya-Hui Chang and Chia-Zhen Lee</i>	

Finding Irredundant Contained Rewritings of Tree Pattern Queries Using Views	113
<i>Junhu Wang, Kewen Wang, and Jiuyong Li</i>	

Topic-Based Techniques

IRank: A Term-Based Innovation Ranking System for Conferences and Scholars	126
<i>Zhiru Li, Xiaoyong Du, Hongyan Liu, Jun He, and Xiaofang Zhou</i>	

A Generalized Topic Modeling Approach for Maven Search	138
<i>Ali Daud, Juanzi Li, Lizhu Zhou, and Faqir Muhammad</i>	

Topic and Viewpoint Extraction for Diversity and Bias Analysis of News Contents	150
<i>Qiang Ma and Masatoshi Yoshikawa</i>	

Topic-Level Random Walk through Probabilistic Model	162
<i>Zi Yang, Jie Tang, Jing Zhang, Juanzi Li, and Bo Gao</i>	

Query-Focused Summarization by Combining Topic Model and Affinity Propagation	174
<i>Dewei Chen, Jie Tang, Limin Yao, Juanzi Li, and Lizhu Zhou</i>	

Web Data Processing

Rank Aggregation to Combine QoS in Web Search	186
<i>Xiangyi Chen and Chen Ding</i>	

Personalized Delivery of On-Line Search Advertisement Based on User Interests	198
<i>Guangyi Xiao and Zhiguo Gong</i>	

Automatic Web Image Annotation via Web-Scale Image Semantic Space Learning	211
<i>Hongtao Xu, Xiangdong Zhou, Lan Lin, Yu Xiang, and Baile Shi</i>	

Multidimensional Data Analysis

Representing and Inferring Causalities among Classes of Multidimensional Data	223
<i>Kun Yue, Mu-Jin Wei, Kai-Lin Tian, and Wei-Yi Liu</i>	

Efficient Incremental Computation of CUBE in Multiple Versions What-If Analysis	235
<i>Yanqin Xiao, Yansong Zhang, Shan Wang, and Hong Chen</i>	
Incremental Computation for MEDIAN Cubes in What-If Analysis	248
<i>Yanqin Xiao, Yansong Zhang, Shan Wang, and Hong Chen</i>	
The Tradeoff of Delta Table Merging and Re-writing Algorithms in What-If Analysis Application	260
<i>Yansong Zhang, Yu Zhang, Yanqin Xiao, Shan Wang, and Hong Chen</i>	

Stream Data Processing

Efficiently Clustering Probabilistic Data Streams	273
<i>Chen Zhang, Cheqing Jin, and Aoying Zhou</i>	
Detecting Abnormal Trend Evolution over Multiple Data Streams	285
<i>Chen Zhang, Nianlong Weng, Jianlong Chang, and Aoying Zhou</i>	
Mining Interventions from Parallel Event Sequences	297
<i>Ning Yang, Changjie Tang, Yue Wang, Rong Tang, Chuan Li, Jiaoling Zheng, and Jun Zhu</i>	
Effective Similarity Analysis over Event Streams Based on Sharing Extent	308
<i>Yanqiu Wang, Ge Yu, Tiancheng Zhang, Dejun Yue, Yu Gu, and Xiaolong Hu</i>	

Data Mining and Its Applications

A Term-Based Driven Clustering Approach for Name Disambiguation	320
<i>Jia Zhu, Xiaofang Zhou, and Gabriel Pui Cheong Fung</i>	
Sentiment Clustering: A Novel Method to Explore in the Blogosphere	332
<i>Shi Feng, Daling Wang, Ge Yu, Chao Yang, and Nan Yang</i>	
Kernel-Based Transductive Learning with Nearest Neighbors	345
<i>Liangcai Shu, Jinhui Wu, Lei Yu, and Weiyi Meng</i>	
An Improved Algorithm for Mining Non-Redundant Interacting Feature Subsets	357
<i>Chaofeng Sha, Jian Gong, and Aoying Zhou</i>	

AutoPCS: A Phrase-Based Text Categorization System for Similar Texts	369
<i>Zhixu Li, Pei Li, Wei Wei, Hongyan Liu, Jun He, Tao Liu, and Xiaoyong Du</i>	
A Probabilistic Approach for Mining Drifting User Interest	381
<i>Pin Zhang, Juhua Pu, Yongli Liu, and Zhang Xiong</i>	
Temporal Company Relation Mining from the Web	392
<i>Changjian Hu, Liqin Xu, Guoyang Shen, and Toshikazu Fukushima</i>	

Data Management Support to Advanced Applications

StreetTiVo: Using a P2P XML Database System to Manage Multimedia Data in Your Living Room	404
<i>Ying Zhang, Arjen de Vries, Peter Boncz, Djoerd Hiemstra, and Roeland Ordelman</i>	
Qualitative Spatial Representation and Reasoning for Data Integration of Ocean Observational Systems	416
<i>Longzhuang Li, Yonghuai Liu, Anil Kumar Nalluri, and Chunhui Jin</i>	
Managing Hierarchical Information on Small Screens	429
<i>Jie Hao, Kang Zhang, Chad Allen Gabrysch, and Qiaoming Zhu</i>	
An Approach to Detect Collaborative Conflicts for Ontology Development	442
<i>Yewang Chen, Xin Peng, and Wenyun Zhao</i>	

Miscellaneous

Using Link-Based Content Analysis to Measure Document Similarity Effectively	455
<i>Pei Li, Zhixu Li, Hongyan Liu, Jun He, and Xiaoyong Du</i>	
Parallel Load Balancing Strategies for Tree-Structured Peer-to-Peer Networks	468
<i>Yaw-Huei Chen and Yu-Ren Ju</i>	
A Verification Mechanism for Secured Message Processing in Business Collaboration	480
<i>Haiyang Sun, Jian Yang, Xin Wang, and Yanchun Zhang</i>	
Semantic Service Discovery by Consistency-Based Matchmaking	492
<i>Rajesh Thiagarajan, Wolfgang Mayer, and Markus Stumptner</i>	
A Fast Heuristic Algorithm for the Composite Web Service Selection ...	506
<i>Rong Wang, Chi-Hung Chi, and Jianming Deng</i>	

Short Papers

Intervention Events Detection and Prediction in Data Streams	519
<i>Yue Wang, Changjie Tang, Chuan Li, Yu Chen, Ning Yang, Rong Tang, and Jun Zhu</i>	
New Balanced Data Allocating and Online Migrating Algorithms in Database Cluster	526
<i>Weihua Gong, Lianghuai Yang, Decai Huang, and Lijun Chen</i>	
An Evaluation of Real-Time Transaction Services in Web Services E-Business Systems	532
<i>Hong-Ren Chen</i>	
Formal Definition and Detection Algorithm for Passive Event in RFID Middleware	538
<i>Wei Ye, Wen Zhao, Yu Huang, Wenhui Hu, Shikun Zhang, and Lifu Wang</i>	
Distributed Benchmarking of Relational Database Systems	544
<i>Murilo R. de Lima, Marcos S. Sunyé, Eduardo C. de Almeida, and Alexandre I. Direne</i>	
Optimizing Many-to-Many Data Aggregation in Wireless Sensor Networks	550
<i>Shuguang Xiong and Jianzhong Li</i>	
Bag of Timestamps: A Simple and Efficient Bayesian Chronological Mining	556
<i>Tomonari Masada, Atsuhiro Takasu, Tsuyoshi Hamada, Yuichiro Shibata, and Kiyoshi Oguri</i>	
Efficient Hybrid Password-Based Authenticated Group Key Exchange	562
<i>Shuhua Wu and Yuefei Zhu</i>	
Optimal K-Nearest-Neighbor Query in Data Grid	568
<i>Yi Zhuang, Hua Hu, Xiaojun Li, Bin Xu, and Haiyang Hu</i>	
A Routing Scheme with Localized Movement in Event-Driven Wireless Sensor Networks	576
<i>Fang-Yie Leu, Wen-Chin Wu, and Hung-Wei Huang</i>	
Short Text Clustering for Search Results	584
<i>Xingliang Ni, Zhi Lu, Xiaojun Quan, Wenyin Liu, and Bei Hua</i>	
Load Shedding for Shared Window Join over Real-Time Data Streams	590
<i>Li Ma, Dangwei Liang, Qiongsheng Zhang, Xin Li, and Hongan Wang</i>	

A Sliding-Window Approach for Finding Top-k Frequent Itemsets from Uncertain Streams	597
<i>Xiaojian Zhang and Huili Peng</i>	
A Novel ID-Based Anonymous Signcryption Scheme	604
<i>Jianhong Zhang, Shengnan Gao, Hua Chen, and Qin Geng</i>	
Pseudo Period Detection on Time Series Stream with Scale Smoothing	611
<i>Xiaoguang Li, Long Xie, Baoyan Song, Ge Yu, and Daling Wang</i>	
An Affinity Path Based Wireless Broadcast Scheduling Approach for Multi-item Queries	617
<i>Wei Li, Zhuoyao Zhang, Weiwei Sun, Dingding Mao, and Jingjing Wu</i>	
Lightweight Data Mining Based Database System Self-optimization: A Case Study	623
<i>Xiongpai Qin, Wei Cao, and Shan Wang</i>	
Efficient Detection of Discords for Time Series Stream	629
<i>Yubao Liu, Xiuwei Chen, Fei Wang, and Jian Yin</i>	
SLICE: A Novel Method to Find Local Linear Correlations by Constructing Hyperplanes	635
<i>Liang Tang, Changjie Tang, Lei Duan, Yexi Jiang, Jie Zuo, and Jun Zhu</i>	
Complete and Equivalent Query Rewriting Using Views	641
<i>Jianguo Lu, Minghao Li, John Mylopoulos, and Kenneth Cheung</i>	
Grubber: Allowing End-Users to Develop XML-Based Wrappers for Web Data Sources	647
<i>Shaohua Yang, Guiling Wang, and Yanbo Han</i>	
Performance Analysis of Group Handover Scheme for IEEE 802.16j-Enabled Vehicular Networks	653
<i>Lianhai Shan, Fuqiang Liu, and Kun Yang</i>	
Directly Identify Unexpected Instances in the Test Set by Entropy Maximization	659
<i>Chaofeng Sha, Zhen Xu, Xiaoling Wang, and Aoying Zhou</i>	
Decentralized Orchestration of BPEL Processes with Execution Consistency	665
<i>Wei hai Yu</i>	

Let Wiki Be More Powerful and Suitable for Enterprises with External Program	671
<i>Yang Zhao, Yong Zhang, and Chunxiao Xing</i>	
DepRank: A Probabilistic Measure of Dependence via Heterogeneous Links	677
<i>Pei Li, Bo Hu, Hongyan Liu, Jun He, and Xiaoyong Du</i>	
Author Index	683