

Table of Contents

Reasoning about Domain Semantics over Relations, Bags, Partial Relations and Partial Bags <i>Sebastian Link</i>	1
Distinguishing Soft-Goals and Quality Requirements in Software Requirements Modeling <i>Thi-Thuy-Hang Hoang and Alain Pirotte</i>	9
A Case for Inverted Indices in In-Memory Databases <i>Jens Krueger, Johannes Wust, Martin Faust, Tim Berning, and Hasso Plattner</i>	15
Sparse Dictionaries for In-Memory Column Stores <i>Johannes Wust, Jens Krueger, Martin Grund, Uwe Hartmann, and Hasso Plattner</i>	25
BI: Lean Manufacturing Indicators Applied to HR Applications - An Implementation Study <i>Robson Poffo and Mehran Misaghi</i>	34
Improving the Quality of Knowledge Discovery Process by Information Gain Computing' <i>Dumitru Dan Burdescu, Marian Cristian Mihaescu, Bogdan Logofatu, and Costel Marian Ionascu</i>	38
Education Cluster for Intelligent Provision of eLearning Services <i>Stanimir Stoyanov, Emil Doychev, Veselina Valkanova, and Georgi Cholakov</i>	45
Towards Accurate Electricity Load Forecasting in Smart Grids <i>Zeyar Aung, Mohamed Toukhy, John Williams, Abel Sanchez, and Sergio Herrero</i>	51
Operating on Hierarchical Enterprise Data in an In-Memory Column Store <i>Christian Tinnefeld, Bjoern Wagner, and Hasso Plattner</i>	58
About Top-k Flexible Queries in Large Databases <i>Khaoula Mabrouki, Amel Grissa Touzi, and Habib Ounalli</i>	64
Association Rule Mining from Large and Heterogeneous Databases with Uncertain Data using Genetic Network Programming <i>Eloy Gonzales and Koji Zettsu</i>	74
A Multidimensional Data Modeling of the SEER Database from the USA National Cancer Institute <i>Heidy M. Marin-Castro, Jose Torres-Jimenez, and Diana I. Escalona-Vargas</i>	81
Constructing a Synthetic Longitudinal Health Dataset for Data Mining <i>Shima Ghassem Pour, Anthony Maeder, and Louisa Jorm</i>	86

Business Lead Generation for Online Real Estate Services: A Case Study <i>Md. Rahman, Xinghui Zhao, Maria Mosquera, Qigang Gao, Vlado Keselj, and Hai Wang</i>	91
On Parallel Evaluation of SPARQL Queries <i>Zbynek Falt, David Bednarek, Miroslav Cermak, and Filip Zavoral</i>	97
A New Approach For Top-k Flexible Queries In Large Database Using The Knowledge Discovered <i>Amel Grissa touzi and Habib Ounalli</i>	103
A Knowledge Management Methodology for Studying Health Science Students' Development of Misconceptions <i>Meaghen Regts, Arturo Fernandez Espinosa, Miguel Vargas Martin, and Jayshiro Tashiro</i>	112
Prediction Model Based on User Profile and Partial Course Progress for a Digital Media Learning Environment <i>Arturo Fernandez Espinosa, Meaghen Regts, Jayshiro Tashiro, and Miguel Vargas Martin</i>	120
Clustering Large-Scale, Distributed Software Component Repositories <i>Marcos Paulo Paixao, Leila Silva, and Gledson Elias</i>	124
OLAP Authentication and Authorization via Query Re-writing <i>Todd Eavis and Ahmad Altamimi</i>	130
Basic Components for Building Column Store-based Applications <i>Andreas Schmidt and Daniel Kimmig</i>	140
Leveraging Compression in In-Memory Databases <i>Jens Krueger, Johannes Wust, Martin Linkhorst, and Hasso Plattner</i>	147
A System Overview for netCDF-FastBit Integration <i>David Marks, Mahdi Abdelguerfi, Elias Ioup, John Sample, and Kevin Shaw</i>	154
The Multi-Tenant Data Placement Problem <i>Jan Schaffner, Dean Jacobs, Tim Kraska, and Hasso Plattner</i>	157
Evaluation of Data Anonymization Tools <i>Sergey Vinogradov and Alexander Pastsyak</i>	163
Dynamic Stream Allocation with the Discrepancy between Data Access Time and CPU Usage Time <i>Sayaka Akioka, Yoichi Muraoka, and Hayato Yamana</i>	169
Relevance of Quality Criteria According to the Type of Information Systems <i>Maria del Pilar Angeles and Francisco Javier Garcia-Ugalde</i>	175
Cloud-based Medical Image Collection Database with Automated Annotation	182

