

Contents

Foundations of Flexible Querying

| | |
|---|----|
| Abductive Question-Answer System (AQAS) for Classical Propositional Logic | 3 |
| <i>Szymon Chlebowski and Andrzej Gajda</i> | |
| Querying with Vague Quantifiers Using Probabilistic Semantics | 15 |
| <i>Christian G. Fermüller, Matthias Hofer, and Magdalena Ortiz</i> | |
| Towards Analogy-Based Decision - A Proposal | 28 |
| <i>Richard Billingsley, Henri Prade, Gilles Richard, and Mary-Anne Williams</i> | |
| Flexible Query Answering with the powerset-AI Operator and Star-Based Ranking | 36 |
| <i>Lena Wiese</i> | |

Recommendation and Ranking

| | |
|---|----|
| On the Need for Explicit Confidence Assessments of Flexible Query Answers | 51 |
| <i>Guy De Tré, Robin De Mol, and Antoon Bronselaer</i> | |
| Meeting and Joining Theme Models in Vector Spaces for Information Retrieval | 59 |
| <i>Emanuele Di Buccio and Massimo Melucci</i> | |
| A Typicality-Based Recommendation Approach Leveraging Demographic Data | 71 |
| <i>Aurélien Moreau, Olivier Pivert, and Grégory Smits</i> | |
| MRRA: A New Approach for Movie Rating Recommendation | 84 |
| <i>Chiraz Trabelsi and Gabriella Pasi</i> | |

Technologies for Flexible Representations and Querying

| | |
|--|-----|
| New Variants of Hash-Division Algorithm for Tolerant and Stratified Division | 99 |
| <i>Noussaiba Benadjmi and Khaled Walid Hidouci</i> | |
| Coverage Degree-Based Fuzzy Topological Relationships for Fuzzy Regions | 112 |
| <i>Anderson Chaves Carniel and Markus Schneider</i> | |

Plug-and-Play Queries for Temporal Data Sockets. 124
Curtis E. Dyreson and Sourav S. Bhowmick

Index Structures for Preference Database Queries 137
Markus Endres and Felix Weichmann

Knowledge Discovery and Information/Data Retrieval

Content-Based Meta-Discovery Service of Remote Sensing Images 153
Bordogna Gloria, Ceresi Andrea, and Sterlacchini Simone

Machine Learning Method for Paraphrase Identification. 164
*Oleksandr Marchenko, Anatoly Anisimov, Andrii Nykonenko,
 Tetiana Rossada, and Egor Melnikov*

DRIMS: A Software Tool to Incrementally Maintain Previous
 Discovered Rules 174
*Alain Pérez-Alonso, Ignacio J. Blanco, Jose M. Serrano,
 and Luisa M. González-González*

Querying Streams of Alerts for Knowledge-Based Detection
 of Long-Lived Network Intrusions 186
*Miguel-Angel Sicilia, Javier Bermejo-Higuera, Elena García-Barriocanal,
 Salvador Sánchez-Alonso, Daniel Domínguez-Álvarez,
 and Miguel Monzón-Fernández*

Intuitionistic Sets

Multiplicative Type of Operations over Intuitionistic Fuzzy Pairs 201
Krassimir Atanassov, Eulalia Szmidt, and Janusz Kacprzyk

New Modified Level Operator N_γ Over Intuitionistic Fuzzy Sets. 209
Vassia Atanassova

Application of Topological Operators over Data from InterCriteria Analysis . . . 215
Olympia Roeva, Peter Vassilev, and Panagiotis Chountas

Application of the InterCriteria Analysis Over Air Quality Data 226
*Evdokia Sotirova, Veselina Bureva, Irena Markovska,
 Sotir Sotirov, and Desislava Vankova*

Generalized Net Model

Generalized Net of Cluster Analysis Process Using STING:
 A Statistical Information Grid Approach to Spatial Data Mining 239
*Veselina Bureva, Evdokia Sotirova, Stanislav Popov,
 Deyan Mavrov, and Velichka Traneva*

A Generalized Net Model of the Neocognitron Neural Network 249
*Todor Petkov, Plamena Jovcheva, Zhivko Tomov,
Stanislav Simeonov, and Sotir Sotirov*

Comparison of Conceptual Models of Overall Telecommunication
Systems with QoS Guarantees 260
Stoyan Poryazov, Velin Andonov, and Emiliya Saranova

Generalized Net Model of Muscle Pain Diagnosing 269
Simeon Ribagin, Panagiotis Chountas, and Tania Pencheva

Generalized Nets as a Tool for Modelling of the Urban Bus Transport 276
Ivan Valkov, Krassimir Atanassov, and Lyubka Doukovska

Author Index 287



<http://www.springer.com/978-3-319-59691-4>

Flexible Query Answering Systems

12th International Conference, FQAS 2017, London, UK,

June 21-22, 2017, Proceedings

Christiansen, H.; Jaudoin, H.; Chountas, P.; Andreasen,

T.; Legind Larsen, H. (Eds.)

2017, XIII, 288 p. 77 illus., Softcover

ISBN: 978-3-319-59691-4