

# Contents

Exploiting the Beta Distribution-Based Reputation Model in Recommender System . . . . .	1
<i>Ahmad Abdel-Hafez and Yue Xu</i>	
A Heuristic Search Approach to Find Contrail Avoidance Flight Routes . . . .	14
<i>Rubai Amin and Sameer Alam</i>	
Temporal Conjunctive Queries in Expressive Description Logics with Transitive Roles. . . . .	21
<i>Franz Baader, Stefan Borgwardt, and Marcel Lippmann</i>	
Scaling up Multi-island Competitive Cooperative Coevolution for Real Parameter Global Optimisation . . . . .	34
<i>Kavitesh K. Bali and Rohitash Chandra</i>	
An Evolutionary Algorithm with Classifier Guided Constraint Evaluation Strategy for Computationally Expensive Optimization Problems . . . . .	49
<i>Kalyan Shankar Bhattacharjee and Tapabrata Ray</i>	
Cost to Evaluate Versus Cost to Learn? Performance of Selective Evaluation Strategies in Multiobjective Optimization . . . . .	63
<i>Kalyan Shankar Bhattacharjee and Tapabrata Ray</i>	
A Propositional Plausible Logic . . . . .	76
<i>David Billington</i>	
Monte Carlo Analysis of a Puzzle Game . . . . .	83
<i>Cameron Browne and Frederic Maire</i>	
Tracking Drift Severity in Data Streams. . . . .	96
<i>Kylie Chen, Yun Sing Koh, and Patricia Riddle</i>	
Probabilistic Belief Contraction: Considerations on Epistemic Entrenchment, Probability Mixtures and KL Divergence . . . . .	109
<i>Kinzang Chhogyal, Abhaya Nayak, and Abdul Sattar</i>	
DMAPP: A Distributed Multi-agent Path Planning Algorithm. . . . .	123
<i>Satyendra Singh Chouhan and Rajdeep Niyogi</i>	
Graph-Based Collaborative Filtering Using Rating Nodes: A Solution to the High Ratings/Low Ratings Problem. . . . .	136
<i>Alphan Culha and Andrew Skabar</i>	

A Comparative Study on Vector Similarity Methods for Offer Generation in Multi-attribute Negotiation . . . . .	149
<i>Aodah Diamah, Michael Wagner, and Menkes van den Briel</i>	
Analytical Results on the BFS vs. DFS Algorithm Selection Problem.	
Part I: Tree Search . . . . .	157
<i>Tom Everitt and Marcus Hutter</i>	
Analytical Results on the BFS vs. DFS Algorithm Selection Problem:	
Part II: Graph Search. . . . .	166
<i>Tom Everitt and Marcus Hutter</i>	
Region-Growing Planar Segmentation for Robot Action Planning . . . . .	179
<i>Reza Farid</i>	
A Differentially Private Random Decision Forest Using Reliable Signal-to-Noise Ratios . . . . .	192
<i>Sam Fletcher and Md Zahidul Islam</i>	
Learning from Demonstration Using GMM, CHMM and DHMM:	
A Comparison . . . . .	204
<i>Fenglu Ge, Wayne Moore, and Michael Antolovich</i>	
Implementing Modal Tableaux Using Sentential Decision Diagrams . . . . .	218
<i>Rajeev Goré, Jason Jingshi Li, and Thomas Pagram</i>	
Decision Making Strategy Based on Time Series Data of Voting Behavior. . .	229
<i>Shogo Higuchi, Ryohei Orihara, Yuichi Sei, Yasuyuki Tahara, and Akihiko Ohsuga</i>	
Finding Within-Organisation Spatial Information on the Web . . . . .	242
<i>Jun Hou, Ruth Schulz, Gordon Wyeth, and Richi Nayak</i>	
Knowledge Sharing in Coalitions . . . . .	249
<i>Guifei Jiang, Dongmo Zhang, and Laurent Perrussel</i>	
Possibilistic Inferences in Answer Set Programming . . . . .	263
<i>Yifan Jin, Kewen Wang, and Zhe Wang</i>	
A Two Tiered Finite Mixture Modelling Framework to Cluster Customers on EFTPOS Network. . . . .	276
<i>Yuan Jin and Grace Rumanthir</i>	
A Dual Network for Transfer Learning with Spike Train Data . . . . .	285
<i>Keith Johnson and Wei Liu</i>	
Stable Feature Selection with Support Vector Machines . . . . .	298
<i>Iman Kamkar, Sunil Kumar Gupta, Dinh Phung, and Svetha Venkatesh</i>	

Gene Transfer: A Novel Genetic Operator for Discovering <i>Diverse-Frequent Patterns</i> . . . . .	309
<i>Shanjida Khatun, Hasib Ul Alam, Mahmood A. Rasid, and Swakkhar Shatabda</i>	
Task Allocation Using Particle Swarm Optimisation and Anomaly Detection to Generate a Dynamic Fitness Function . . . . .	317
<i>Adam Klyne and Kathryn Merrick</i>	
Evolving High Fidelity Low Complexity Sheepdog Herding Simulations Using a Machine Learner Fitness Function Surrogate for Human Judgement . . .	330
<i>Erandi Lakshika, Michael Barlow, and Adam Easton</i>	
An Episodic Memory Retrieval Algorithm for the Soar Cognitive Architecture . . . . .	343
<i>Francis Li, Jesse Frost, and Braden J. Phillips</i>	
Finding the $k$ in K-means Clustering: A Comparative Analysis Approach. . .	356
<i>Markus Lumpe and Quoc Bao Vo</i>	
Discovering Causal Structures from Time Series Data via Enhanced Granger Causality . . . . .	365
<i>Ling Luo, Wei Liu, Irena Koprinska, and Fang Chen</i>	
Automating Marine Mammal Detection in Aerial Images Captured During Wildlife Surveys: A Deep Learning Approach . . . . .	379
<i>Frederic Maire, Luis Mejias Alvarez, and Amanda Hodgson</i>	
Path Algebra for Mobile Robots . . . . .	386
<i>Frederic Maire and Gavin Suddrey</i>	
Abduction in PDT Logic . . . . .	398
<i>Karsten Martiny and Ralf Möller</i>	
Exploiting Innocuousness in Bayesian Networks . . . . .	411
<i>Alexander Motzek and Ralf Möller</i>	
A Tweet Classification Model Based on Dynamic and Static Component Topic Vectors. . . . .	424
<i>Parma Nand, Rivindu Perera, and Gisela Klette</i>	
Understanding Toxicities and Complications of Cancer Treatment: A Data Mining Approach. . . . .	431
<i>Dang Nguyen, Wei Luo, Dinh Phung, and Svetha Venkatesh</i>	
A Representation Theorem for Spatial Relations . . . . .	444
<i>Özgür Lütfü Özçep</i>	

Stream-Query Compilation with Ontologies . . . . .	457
<i>Özgür Lütfü Özçep, Ralf Möller, and Christian Neuenstadt</i>	
Vote Counting as Mathematical Proof . . . . .	464
<i>Dirk Pattinson and Carsten Schürmann</i>	
Answer Presentation with Contextual Information: A Case Study Using Syntactic and Semantic Models. . . . .	476
<i>Rivindu Perera and Parma Nand</i>	
A Multi-Agent Approach for Decentralized Voltage Regulation by Considering Distributed Generators . . . . .	484
<i>Fenghui Ren, Minjie Zhang, and Chao Yu</i>	
Turning Gaming EEG Peripherals into Trainable Brain Computer Interfaces . . .	498
<i>Manisha Senadeera, Frederic Maire, and Andry Rakotonirainy</i>	
Event Classification Using Adaptive Cluster-Based Ensemble Learning of Streaming Sensor Data. . . . .	505
<i>Ahmad Shahi, Brendon J. Woodford, and Jeremiah D. Deng</i>	
Standoff-Balancing: A Novel Class Imbalance Treatment Method Inspired by Military Strategy . . . . .	517
<i>Michael J. Siers and Md Zahidul Islam</i>	
Wisdom of Crowds: An Empirical Study of Ensemble-Based Feature Selection Strategies . . . . .	526
<i>Teo Susnjak, David Kerry, Andre Barczak, Napoleon Reyes, and Yaniv Gal</i>	
Modeling Ice Storm Climatology . . . . .	539
<i>Ranjini Swaminathan, Mohan Sridharan, Gillian Dobbie, and Katharine Hayhoe</i>	
Investigating Japanese Ijime (Bullying) Behavior Using Agent-Based and System Dynamics Models . . . . .	554
<i>Chaiwat Thawiworadilok, Mohsen Jafari Songhori, and Takao Terano</i>	
On the Krom Extension of $\mathcal{CFDI}_{nc}^{\forall-}$ . . . . .	559
<i>David Toman and Grant Weddell</i>	
Understanding People Relationship: Analysis of Digitised Historical Newspaper Articles . . . . .	572
<i>Sharon Torao-Pingi and Richi Nayak</i>	

Towards the Elimination of the Miscommunication Between Users in Twitter: Tweet Classification Based on Expected Responses by User. . . . .	589
<i>Tomoaki Ueda, Ryohei Orihara, Yuichi Sei, Yasuyuki Tahara, and Akihiko Ohsuga</i>	
Reinforcement Learning of Pareto-Optimal Multiobjective Policies Using Steering . . . . .	596
<i>Peter Vamplew, Rustam Issabekov, Richard Dazeley, and Cameron Foale</i>	
Absorption for ABoxes and TBoxes with General Value Restrictions . . . . .	609
<i>Jiewen Wu, Taras Kinash, David Toman, and Grant Weddell</i>	
Optimal Hyper-Parameter Search in Support Vector Machines Using Bézier Surfaces. . . . .	623
<i>Shinichi Yamada, Kourosh Neshatian, and Raazesh Sainudiin</i>	
Hierarchical Learning for Emergence of Social Norms in Networked Multiagent Systems . . . . .	630
<i>Chao Yu, Hongtao Lv, Fenghui Ren, Honglin Bao, and Jianye Hao</i>	
Information Extraction to Improve Standard Compliance: The Case of Clinical Handover . . . . .	644
<i>Liyuan Zhou and Hanna Suominen</i>	
<b>Author Index . . . . .</b>	<b>651</b>

AI 2015: Advances in Artificial Intelligence  
28th Australasian Joint Conference, Canberra, ACT,  
Australia, November 30 -- December 4, 2015,  
Proceedings  
Pfahring, B.; Renz, J. (Eds.)  
2015, XVII, 652 p. 196 illus., Softcover  
ISBN: 978-3-319-26349-6