

Proceedings

Fifth International Conference on Fuzzy Systems and Knowledge Discovery

FSKD 2008

18-20 October 2008 • Jinan, Shandong, China



Los Alamitos, California
Washington • Tokyo



TABLE OF CONTENTS

KEYNOTE LECTURE

(Automatic) Cluster Count Extraction from Unlabeled Data Sets	1
<i>Isaac J. Sledge, Jacalyn M. Huband, James C. Bezdek</i>	

FUZZY CLUSTERING

A Collaborative Filtering Algorithm Based on Rough Set and Fuzzy Clustering	12
<i>DanEr Chen, YuLong Ying, SongJie Gong</i>	
A Hybrid Quantum-Behaved Particle Swarm Optimization Algorithm for Clustering Analysis	16
<i>Kezhong Lu, Kangnian Fang, Guangqian Xie</i>	
A New Clustering Analysis Used for Generating Fuzzy Control Rules	21
<i>Zhigang Li, Zhenlei Wang</i>	
A Novel Clusterer Ensemble Algorithm Based on Dynamic Cooperation	27
<i>Kai Kang, Hua-Xiang Zhang, Ying Fan</i>	
A Weight Entropy k-Means Algorithm for Clustering Dataset with Mixed Numeric and Categorical Data	31
<i>Taoying Li, Yan Chen</i>	
An In-depth Analysis of Fuzzy C-Means Clustering for Cellular Manufacturing	37
<i>Jie Li, Chao-hsien Chu, Yunfeng Wang</i>	
Application of Improved FCM on Classification of Multi-target Guided by AWACS	42
<i>Kun Zhang, Deyun Zhou</i>	
Clustering Web Access Patterns Based on Hybrid Approach	47
<i>Rui Wu</i>	
Fuzzy C-Means Text Clustering with Supervised Feature Selection	52
<i>Wei Wang, Chunheng Wang, Xia Cui, Ai Wang</i>	
Improving Fuzzy C-Means Clustering Based on Adaptive Weighting	57
<i>Wei Wang, Chunheng Wang, Xia Cui, Ai Wang</i>	
MR Image Segmentation Based On Fuzzy C-Means Clustering and the Level Set Method	62
<i>Chengzhong Huang, Bin Yan, Hua Jiang, Dahui Wang</i>	
Source Signals' Number Estimation Based on Fuzzy Clustering in Blind Separation of BPSK Signals	67
<i>Beihai Tan, Weijun Li</i>	
The Algorithm of Rough Set-Based Grid Fuzzy Clustering and Its Application and Research in Tongue Diagnosis of Traditional Chinese Medicine	72
<i>Yuke Wei, Jiangping Li, Renhuang Wang</i>	
A Fuzzy and Hybrid Clustering Framework Using Self-Organizing Map	77
<i>Ning Chen, An Chen</i>	

Fuzzy c-Mean Algorithm Based on Complete Mahalanobis Distances and Separable Criterion	82
<i>Hsiang-Chuan Liu, Der-Bang Wu, Jeng-Ming Yih, Shin-Wu Liu</i>	

FUZZY THEORY AND MODELS

A Fuzzy Approach to Multi-product Mixed Production Job Shop Scheduling Algorithm	87
<i>Wanlei Wang, Changfeng Yuan, Xiaobing Liu</i>	
A Fuzzy Information Retrieval Method Based on the Vector-Correlative Model	92
<i>Ying-liang Wu, Bo Zhou</i>	
A Fuzzy Regression Model for Predicting Non-crisp Variable	96
<i>Huaitien Wang, Nang-Fei Pan</i>	
A Fuzzy-PID Controller Based on Particle Swarm Algorithm	99
<i>Xiao-yi Wang, Zai-wen Liu, Yang Jiang, Long-hou Sun</i>	
A Hybrid Algorithm of PSO and SA for Solving JSP	103
<i>Xiaoyu Song, Yang Cao, Chunguang Chang</i>	
A Method for Constructing Lattice Implication Algebras on the Interval [0,1]	108
<i>Xue-fang Wang, Pei-shun Liu</i>	
A Method of Ranking Based on Interval Order Number	114
<i>Xia Chen, Baozhen Wei, Yingze Wu</i>	
A New Approach to Parameters Identification of Fuzzy Regression Models	119
<i>Fengqiu Liu, Jianmin Wang, Yu Peng</i>	
A New Definition of Characteristic Function for Random Fuzzy Variable	124
<i>Jiyou Liu, Yuanguo Zhu</i>	
A New Method for Determining the True Value Domain of Conditional Fuzzy Inference Sentences	129
<i>Fusheng Yu, Ruiqiong Cai, Xiaoxia Zhang</i>	
A New Method for Fuzzy System Representation and Implementation	134
<i>Zhinong Miao, Xia You, Huijun Zhen</i>	
A New Ranking Method in the Interval Number Complementary Judgement Matrix	139
<i>Wen-lei Shi, Xue-jun Peng, Juan Li, Yan-li Gao</i>	
A Novel Method to Calculate Sample Weights for FCM Regression	143
<i>Yan Zhu, Jian Yu</i>	
A Novel Type-Reduction Method for Interval Type-2 Fuzzy Logic Systems	149
<i>Chengdong Li, Jianqiang Yi, Dongbin Zhao</i>	
A Target Recognition Method of Multi-radar	154
<i>Chenxi Wang, Xiaobo Wang, Guohong Wang</i>	
A Unified Formalism for Fuzzy Data Types Representation	159
<i>Hailong Wang, Z. M. Ma, Li Yan, Jingwei Cheng</i>	
A Weighting Fuzzy Clustering Algorithm Based on Euclidean Distance	164
<i>Zhan-ao Xue, Feng Cen, Li-ping Wei</i>	
An Analytic Method for Consensus Analysis in Group Experts' Judgments Based on Numerical Decision Matrix Preference Information	168
<i>Xia Chen, Li-Hong Ma</i>	

An Approach to Hybrid Multiple Attribute Decision-Making with Time Series Based on Incomplete Information on Weights	173
<i>ShengBao Yao, Wanan Cui</i>	
An Improved Fuzzy Image Enhancement Algorithm	178
<i>Liang-rui Tang, Jing Zhang, Bing Qi</i>	
Analysis and Evaluation of Enterprise Capability Elements Based on Client Value	182
<i>Weiwei Liu, Chunsheng Shi</i>	
Animal Fiber Classification Based on Fuzzy Neural Network	187
<i>Xian-Jun Shi, Zi-Hou Yuan, Gui Liu, Wei-Dong Yu</i>	
Approximate Knowledge Mass and Extended Automation Reasoning System in Type II Topological Logic	192
<i>Yalin Zheng, Guang Yang, Jing Zheng, Peican Huang</i>	
Automated Negotiation Nased on Prioritised Fuzzy Constraint Satisfaction Problem	197
<i>Wen-Li Li, Jian Yang</i>	
Bridges between Fuzzy Dominance and Credibilistic VaR Dominance	202
<i>Jin Peng, Shengguo Li</i>	
Cardinal Fuzzy Quantifiers Based on the Framework of Fuzzy Sets	207
<i>Dongping Gao, Jiahong Guo</i>	
Consistency, Continuity and Approximation Properties of CRI Algorithm and Triple I Method	212
<i>Jian Hou, Fei Yuan, Hong-hai Mi</i>	
Continuously Initial Observability for the Semilinear Fuzzy Integrodifferential Equations	217
<i>Young Chel Kwun, Mi Ju Kim, Jong Seo Park, Jin Han Park</i>	
Controllability for the Fuzzy Differential Equations in n-Dimension Fuzzy Vector Space	222
<i>Young Chel Kwun, Woe Hyun Kim, Jong Seo Park, Jin Han Park</i>	
Convergence of Powers of a Matrix over Distributive Lattice Under the \bullet-+ Compositions	227
<i>Gui-ying Chen</i>	
Decision Making Method Based on Projection of Hybrid Vector	230
<i>Congjun Rao, Huanbin Liu, Chuanfeng Li</i>	
Delay-Dependent Generalized H_2 Control for Discrete-Time T-S Fuzzy Systems Based on a Switching Fuzzy Model and Piecewise Lyapunov Function	235
<i>ZhiLe Xia</i>	
Dormancy and Spatial Logic of Mobile Ambients	240
<i>Rongde Lin, Jianqing Xi, Yubin Guo</i>	
Dynamic Uncertain Linguistic Weighted Geometric Mean Operator	246
<i>Guiwu Wei, Rui Lin</i>	
Enhancing the Performance of the Fuzzy System Approach to Prediction	251
<i>Thi Thanh Nguyen, Jim Peterson</i>	
Feature Selection Based on a New Dependency Measure	258
<i>Chaofeng Sha, Xipeng Qiu, Aoying Zhou</i>	
Fuzzy Probabilistic Sets and r-Fuzzy Sets	263
<i>Xue-hai Yuan, Hong-xing Li, Cheng Zhang</i>	
Fuzzy Robust Dual-Mode Control for a Class of Nonlinear Systems	269
<i>Ji-Wei Wen, Fei Liu</i>	

LaTeX Fuzzy Y-Irresolute Mappings	274
<i>Yin-hang Wang, Shi-Zhong Bai</i>	
Generalized Triangular Norms Based Product and Similarity of Fuzzy Sets	278
<i>Fusheng Yu, Mingxin Zhang</i>	
Grey Relational Analysis Method for Interval-Valued Intuitionistic Fuzzy Multiple Attribute Decision Making	283
<i>Guiwu Wei, Gang Lan</i>	
Group Decision Making Methods for Different Fuzzy Preferences with Uncertainty Number	288
<i>Zaiwu Gong, Jie Wu, Weijun Cui</i>	
Image Denoising with Nonsampled Wavelet-Based Contourlet Transform	293
<i>Zhe Liu, Huanan Xu</i>	
Improved Genetic Algorithm of Multi-objective Structure Fuzzy Optimization	298
<i>Yinan Lai, Mingzhu Lai, Bindi You, Todorov Georgi Dimitrov</i>	
Integrative Performance Evaluation for Strategic Supplier's under Supply Chain Management Based on Logarithm Triangular Fuzzy Number- AHP Method	303
<i>Jianhua Yang</i>	
LaTeX L-Fuzzy Strong Pre-connectivity	308
<i>Shi-Zhong Bai, Xiu-Yun Wu</i>	
Method for Multiple Attribute Decision Making in Uncertain Linguistic Setting and Its Application to Supplier Selection	311
<i>Hongjun Wang, Guiwu Wei</i>	
Minimax Designs for Approximately Linear Multiresponse Models	316
<i>Rong-Xian Yue, Xin Liu</i>	
Mining Weight Information from a Triangular Fuzzy Number Preference	321
<i>Bo Bai, Lijuan Cao, Jian Lin</i>	
Models for Lattice-Valued First-Order Logic LF(X)	327
<i>Pei-shun Liu, Xue-fang Wang</i>	
Multi-person Multi-attribute Decision Making Problems Based on Interval-valued Intuitionistic Fuzzy Information	332
<i>Jin Han Park, Il Young Park, Young Chel Kwun, Jong Seo Park</i>	
Mutually-Inversistic Logic with Uncertainty	338
<i>Xunwei Zhou</i>	
Novel Method of Hybrid Multi-Attribute Decision Making	345
<i>Cheng Wang, Huanbin Liu, Ping Li</i>	
On Generalized Fuzzy Filters of MTL-Algebras	349
<i>Xueling Ma, Jianming Zhan, Yang Xu</i>	
On the Completion of Fuzzy Number Space with Respect to Endograph Metric	354
<i>Taihe Fan, Lihong Fan</i>	
On the Continuity of Equilibrium Chance Functions	359
<i>Fang-Fang Hao, Yan-Kui Liu</i>	
On the Definition of the Fuzzy Sublattice	364
<i>Jia-qi Yang, Ying Han, Xue-hai Yuan</i>	
On the Significance of Parameter Selection of Fuzzy Control System	369
<i>Lian-yun He</i>	

Optimal Model of Reservoir Flood Operation Considering Objective and Subjective Weight and Its Application	373
<i>Shufeng Xi, Jingxuan Yuan, Ji Liu</i>	
Pointwise Logic on Completely Distributive Lattices and Approximate Reasoning	378
<i>Yalin Zheng, Guang Yang, Jing Zheng, Jinsheng Xing</i>	
Product Supervisor for Fuzzy Discrete Event Systems	383
<i>Chengjia Li, Yifan Cai, Fuling Ding</i>	
Ranking Fuzzy Numbers Based On Ideal Characteristic Vector	388
<i>Zhong-xing Wang, Yong-jun Liu</i>	
Research and Application of Improved K-Means Algorithm Based on Fuzzy Feature Selection	393
<i>Xiuyun Li, Jie Yang, Qing Wang, Jinjin Fan, Peng Liu</i>	
Robust Reliable Fuzzy Control for Uncertain Markovian Jump Singular Systems	398
<i>Aiqing Zhang</i>	
Robust Stability Analysis for Fuzzy BAM Neural Networks with Time Varying Delays	403
<i>Bin Liu, Xu Guang, Xu Qian</i>	
Rough Fuzzy Sets in Generalized Approximation Space	408
<i>Bingzhen Sun, Zengtai Gong</i>	
Software Development Effort Estimation Using Fuzzy Logic - A Survey	413
<i>M. Wasif Nisar, Yong-Ji Wang, Manzoor Elahi</i>	
Solving System of Fuzzy Diophantine Equations	420
<i>Cheng-Feng Hu, Fung-Bao Liu</i>	
LaTeX SSP-Convergence of Fuzzy Nets and Its Application	425
<i>Shi-Zhong Bai, Hai Luo</i>	
LaTeX Strong-$I N_\beta$-Compactness in L-Topological Spaces	428
<i>Shi-Zhong Bai, Lei Fan, Wan-Liang Wang</i>	
The Algorithm of Dynamic Battery SOC Based on Mamdani Fuzzy Reasoning	431
<i>Shuang-shuang Han, Wan-zhong Chen</i>	
The Application of Generalized Predictive Control to the HAGC	436
<i>Xiaodong Zhang, Xiaolan Yao, Qinghe Wu, Daoping Li</i>	
The Category RSC of I-Rough Sets	440
<i>Xiao-shen Li, Xue-hai Yuan</i>	
The Fuzziness Measure in Fuzzy Rough Sets	445
<i>Yue-jin Lv, Hong-yun Zhang, Zhi-cheng Chen</i>	
The Fuzzy Multi-Objective Programming Model and Solving Methods Based on Group Weight	449
<i>Guoqiang Xiong, Quan Pan, Hongcai Zhang</i>	
The Fuzzy Rule-Number Estimation of T-S Fuzzy Models as Universal Approximators	454
<i>Fengqiu Liu, Xiaoping Xue, Jianmin Wang</i>	
The Influence of Volume and Volatility on Predicting Shanghai Stock Exchange Trends	462
<i>Romain Pierrot, Hongyan Liu</i>	
The Relativity and Properties of Logical Operator, Fuzzy Relations and General Fuzzy Rough Approximation	467
<i>Suhua Zheng, Xiaodong Liu, Fenglan Xiong</i>	

The Research on the Algorithm of Nonlinear Support Vector Classification Machine Based on Fuzzy Theory	471
<i>Aimin Wang, Wenyang Ge, Zhimin Yang</i>	
Time-varying Modifying Factor Fuzzy Controller Based on the Minesweeping Strategy	476
<i>Jing-Song Hu, Jia-bing Wang, Gui Wu Hu</i>	
OmegaTheta-Convergence Theory of Filters in LOmega-Spaces	481
<i>Shui-Li Chen, Guo-Rong Cai, Guo-Long Chen, Wen-Zhong Guo</i>	

FUZZY CLASSIFIERS

A Blind Equalization Algorithm Based on Dynamic Fuzzy Neural Network	486
<i>Yongxing Hou, Qinghua Bu</i>	
A Learning Algorithm of Fuzzy Cognitive Map in Document Classification	490
<i>Zhen Peng, Bingru Yang, Weiwei Fang</i>	
A Probabilistic Method to Estimate Life Expectancy of Application Software	494
<i>Sheng-zhong Yuan, Hong He, Wei Wang</i>	
An Efficient Fuzzy Kohonen Clustering Network Algorithm	499
<i>Yanqing Yang, Zhenhong Jia, Chun Chang, Xizhong Qin, Tao Li, Hao Wang, Junkai Zhao</i>	
Application of Attribute Recognition Model Based on Coefficient of Data-Driven to Evaluation Water Quality	503
<i>Zhihong Zou, Lejuan Wang</i>	
Approaches of Individual Classifier Generation and Classifier Set Selection for Fuzzy Classifier Ensemble	508
<i>Ai-Min Yang, Yue-Xiang Yang, Sheng-Yi Jiang</i>	
Objective Classification Using Advanced Adaboost Algorithm	514
<i>Kunhui Lin, Ruohe Yan, Hong Duan, Junfeng Yao, Changle Zhou</i>	
Parameter Optimization Based on Quantum Genetic Algorithm for Generalized Fuzzy Entropy Thresholding Segmentation Method	519
<i>HaiYan Yu, JiuLun Fan</i>	
Similarity Measure of Interval-Valued Fuzzy Sets and Application to Pattern Recognition	524
<i>Wenyi Zeng, Qian Yin</i>	
Unimodel-Based Multi-source Portable Spam Filtering	529
<i>Wuying Liu, Ting Wang</i>	

OTHER TOPICS IN FUZZY THEORY AND ALGORITHMS

Adaptive Lifting Scheme for Image Compression	534
<i>Xiaoyuan Yang, Zhipin Zhu, Bo Yang</i>	
An Entropy Decision Model for Selection of QoS-Aware Services Provisioning	539
<i>Ping Wang</i>	
An Interactive Fuzzy Decision Making Method for a Class of Bilevel Programming	546
<i>Zhongping Wan, Guangmin Wang, Kuolin Hou</i>	
An Iterative Method for Fuzzy Linear Systems	552
<i>Yan Feng</i>	

Analysis for Irregularities of Listing Companies Based on Evolutionary Game Theory	557
<i>Weimin Huang, Leping Shen</i>	
Choquet Integrals on L-Fuzzy Sets	563
<i>Yan Huang, Congxin Wu</i>	
Determination of Fuzzy Logic Membership Functions Using Extended Ant Colony Optimization Algorithm	568
<i>Huan Jiang, Huiwen Deng, Yingsi He</i>	
Feature Selection Based on Fuzzy SVM	573
<i>Hong Xia</i>	
Fruit Discrimination on Region Feature	577
<i>Yinqing Li, Xiaodong Zheng, Xiaojie Wang</i>	
Fuzzy Synthetic Evaluation of Water Quality with Membership Functions Constructed by Linear Interpolation	582
<i>Jun Yin, Zening Wu</i>	
Fuzzy Theory Based Support Vector Machine Classifier	587
<i>Xuehua Li, Lan Shu</i>	
Induced Interval-Valued Intuitionistic Fuzzy OWG Operator	592
<i>Guiwu Wei, Wende Yi</i>	
Informal Learning of the Public Servants' Knowledge Communities	597
<i>Ching Huai Peng</i>	
On Implicit Fuzzy Proximal Dynamical Systems Involving General A-Monotone Operators in Banach Spaces	602
<i>Yi-Shun Cui, Heng-you Lan, Yu-chuan Chen</i>	
Optimizing the Geometric Programming Problem with Single-Term Exponents Subject to Max-Product Fuzzy Relational Equation	608
<i>Xuegang Zhou, Bingyuan Cao</i>	
Full Symmetric Function in Partial K-Valued Logic	613
<i>Jian-quan Ouyang</i>	
Saddle Point and Duality for Vector Optimization with Generalized Convexity	622
<i>Shuli Xu, Jun Jiang</i>	
Ship Track Adaptive Control Using Error Estimator	626
<i>Gui-Chen Zhang, Guang Ren</i>	
The Choquet Integral with Respect to R-Measure Based on α-Support	632
<i>Hsiang-Chuan Liu, Yu-Chieh Tu, Wen-Chun Huang, Chin-Chun Chen</i>	
The Sugeno Integral and Its Applications of Nonadditive Set Functions Based on Sigma-Lambda Rules	637
<i>Li Chen, Zengtai Gong, Gang Duan</i>	

STATISTICAL FOUNDATIONS FOR DATA MINING

A Hybrid Statistical Language Model Applied to the Domain Specific Information Retrieval	642
<i>Wei Wang, Kunhui Lin, Changle Zhou</i>	
A New Approach to Blog Post Summarization Using Fast Features	647
<i>Shuang Sun, Liang He, Zhao Lv, Junzhong Gu</i>	

An Unsupervised Gaussian Mixture Classification Mechanism Based on Statistical Learning Analysis	653
<i>Rui Nian, Guangrong Ji, Michel Verleysen</i>	
Automatic Technical Term Extraction Based on Term Association	658
<i>Miao Wan, Song Liu, Jian-Yi Liu, Cong Wang</i>	
Coupling and Accuracy of Gaussian Mean Fields	663
<i>Yarui Chen, Shizhong Liao</i>	
Expected Classification Error of the Euclidean Linear Classifier under Sudden Concept Drift	668
<i>Indre Žliobaite</i>	
Feature Selection Method of Text Tendency Classification	673
<i>Yanling Li, Guanzhong Dai, Gang Li</i>	
Optimized Query Terms Creation Based on Meta-Search and Clustering	677
<i>Hao Yang, Junliang Chen, Ying Zhang, Xiangwu Meng</i>	
Proving to the Coincidence of the Solutions of the Modified Problem with the Original Problem of Multi-class Support Vector Machine	682
<i>Xin Xue, Guoping He, Chenglong Zhao</i>	
Unsupervised Sequential Forward Dimensionality Reduction Based on Fractal	687
<i>GuangHui Yan, LiSong Liu, LinNa Du, XiaXia Yang, ZhiCheng Ma</i>	

MACHINE LEARNING FOR KNOWLEDGE DISCOVERY

A Dynamic CRM Model Based on POMDP	692
<i>Shaohui Ma, Hao Zhang</i>	
A Framework for Object-Oriented Data Mining	697
<i>Linna Li, Bingru Yang, Faguo Zhou</i>	
A Hybrid Re-sampling Method for SVM Learning from Imbalanced Data Sets	702
<i>Peng Li, Pei-Li Qiao, Yuan-Chao Liu</i>	
A Method Based on Rough Set for Decision Making	707
<i>Xu E, Shao-cheng Tong, Yue-ling Jiang, Yun-fei Qiu, Fu-ming Sun, Gui-ying Wei</i>	
A New Approach to Attribute Importance Ranking for Constructing Classification Rules Based on SVR	712
<i>Dexian Zhang, Zhixiao Yang, Yanfeng Fan, Ziqiang Wang</i>	
A New Color Conversion Algorithm for Digital Camera Based on Fourier Basis Functions	718
<i>Xinwu Li</i>	
A Novel Multiple Classifiers Integration Algorithm with Pruning Function	723
<i>Min Fang</i>	
A Retrieval Model Based on Bayesian Network for XML Documents	728
<i>Xiaolong Zhang, Xingchen Heng</i>	
Agent Multi-issue Negotiation with Cases	733
<i>Xiangrong Tong, Wei Zhang</i>	
An Ensemble Approach to Learning to Rank	738
<i>Dong Li, Yang Wang, Weijian Ni, Yalou Huang, Maoqiang Xie</i>	
An Ensemble Classifier Based on Attribute Selection and Diversity Measure	743
<i>Hongbo Shi, Yali Lv</i>	

Analysis of Graph-Based Semi-supervised Regression	748
<i>Jin Luo, Hong Chen, Yi Tang</i>	
Biased Parameter Estimation in LDA	753
<i>Boqiu Yuan, Yiming Zhou, Lin Li</i>	
Classification Algorithm of Neural Network Based on Axon Signal Theory	758
<i>Xiao-Dong Qian</i>	
CoSFuC: A Cost Sensitive Fuzzy Clustering Approach for Medical Prediction	764
<i>Liangyuan Li, Mei Chen, Hanhu Wang, Hui Li</i>	
Cost-Sensitive XCS Classifier System Addressing Imbalance Problems	769
<i>Nguyen Huy Thach, Porntep Rojanavas, Ouen Pinnern</i>	
Data Mining Modeling for Electromagnetic Scattering Computing	774
<i>Weishi Chen, Huansheng Ning, Xia Mao, Baofa Wang</i>	
Distributed k-Nearest Neighbor Search Based on Angular Similarity	778
<i>Xiaopeng Yu, Xiaogao Yu</i>	
Dynamic Partial Coverage Based Feature Selection Method	783
<i>Yu Huang, Gongde Guo, Tianqiang Huang, Hong Chen</i>	
Finding Attributes from Candidates Using HowNet	787
<i>Kui Fu, Guihua Nie, Huimin Wang</i>	
Implementation of Robot Visual Tracking System Based on Rough Set Theory	792
<i>Shijie Dai, Weiguo Ren, Fenglong Gu, He Huang, Shuying Chang</i>	
Japanese NER Post-Processing Based on Improved TBL Method	798
<i>Dequan Zheng, Jing Wang, Tiejun Zhao</i>	
Knowledge Induction for Injection Mould Repairs Based on Rough Set	803
<i>Chen Chen, Ning Mao, Qing-xin Chen</i>	
MBBNTree Classifier Algorithm Based on Active Learning from Unlabeled Samples	809
<i>Yongcun Cao, Yue Zhao, Xiuqin Pan, Yong Lu, Xiaona Xu</i>	
New Concurrent Blind Equalization Algorithm Suitable for High-Order QAM Signals	814
<i>Xing-wang Zhang, Wei Rao</i>	
NP-Hard Problems of Learning from Examples	819
<i>Bin Chen, Guangri Quan</i>	
Optimized KD Tree Application in Instance-Based Learning	824
<i>Peng Chen, Yong Wang</i>	
Research on Medical Image Segmentation Based on Multi-scale CLT	829
<i>Cai-qing Zhang, Hui Liu</i>	
Robust and Stable Locally Linear Embedding	834
<i>Jing Wang</i>	
S-Knowledge Mining and Its Attribute Transfer Dependence	839
<i>Xiumei Hao, Yingling Du</i>	
Spectral Transformation Approaches to Semi-supervised Learning	844
<i>Chonghai Hu, Chengqun Wang, Kangsheng Liu</i>	
Structure and Content Based Blog Pages Identification	850
<i>Feng Yu, Dequan Zheng, Tiejun Zhao, Xiao Cheng</i>	

Text Classification Based on a Novel Bayesian Hierarchical Model	855
<i>Shibin Zhou, Kan Li, Yushu Liu</i>	

DATA PREPROCESSING AND DATA CLEANING FOR DATA MINING

A Hybrid DDM Algorithm Based on Weight Function	859
<i>Guisheng Zhang, Xia Zhang, Deyu Li</i>	
A Scheme of Model Invalidation Assessment for Multivariable Dynamic Matrix Controllers	864
<i>Tengwei Liang, Jun Zhao, Zuhua Xu, Jixin Qian</i>	
Group Technology Based Feature Extraction Methodology for Data Mining	869
<i>Jihong Yan, Wanzhao Li</i>	
Mining Changes of E-shopper Purchase Behavior in B2C	874
<i>Chong Wang, YiJun Li</i>	
Neighborhood Preprocessing SVM for Large-Scale Data Sets Classification	879
<i>Guangxi Chen, Jian Xu, Xiaolin Xiang</i>	
Rough Sets Based Approach to Reduct Approximation: RSBARA	884
<i>Sombut Foitong, Phaitoon Srinil, Ouen Pinngern</i>	

FEATURE SELECTION AND EXTRACTION

A Feature Selection Algorithm Based on Boosting for Road Detection	889
<i>Yun Sha, Xinhua Yu, Guoying Zhang</i>	
A Novel Rough Hypercuboid Method for Classifying Cancers Based on Gene Expression Profiles	894
<i>Jin-Mao Wei, Xin-Bin Yang, Shu-Qin Wang, Li Gu</i>	
Accessing Deep Web Using Automatic Query Translation Technique	899
<i>Hao Liang, Wanli Zuo, Fei Ren, Chong Sun</i>	
An Affine Projection Algorithm with Two Numbers of Input Vectors	904
<i>NamWoong Kong, MoonSoo Chang, PooGyeon Park, Sang Woo Kim</i>	
An Attribute Reduction Algorithm by Rough Set Based on Binary Discernibility Matrix	908
<i>Ping Yang, Jisheng Li, Yongxuan Huang</i>	
An Extraction Algorithm Based on Second-Order Statistics for Noisy Mixtures	913
<i>Yalan Ye, Jiazhi Zeng, Ke Lu</i>	
Automatic Entity Relation Extraction Based on Conditional Random Fields	918
<i>Suxiang Zhang, Suxian Zhang, Guoyang Gao</i>	
Effective Schema Extraction of Query Interfaces on the Deep Web	923
<i>Bao-hua Qiang, Jian-qing Xi, Ling Chen</i>	
Feature Extraction Based on the Independent Component Analysis for Text Classification	928
<i>Minghan Hu, Shijun Wang, Anhui Wang, Lei Wang</i>	
High Resolution Radar Automatic Target Recognition Based on an Improved LDA Method	933
<i>Jing Liu, Junying Zhang, Feng Zhao</i>	
Online Linear Discriminative Learning for Spam Filter	938
<i>Haoliang Qi, Xiaoning He, Muyun Yang, Jun Li, Guohua Lei, Zhongyuan Han, Sheng Li</i>	

Text Feature Extraction Based on Rough Set	942
<i>Yiyuan Cheng, Ruiling Zhang, Xiufeng Wang, Qiushuang Chen</i>	
Unsupervised Optimal Discriminant Plane Based Feature Extraction Method	947
<i>Su-Qun Cao, Shi-Tong Wang, Quan-Yin Zhu, Xiao-Feng Chen</i>	
Weighted Complete Linear Discriminant Analysis and Its Application to Face Recognition	952
<i>Xiaoguo Wang, Yong Huang, Tiejong Cao, Xiongwei Zhang</i>	

CLUSTERING AND CLASSIFICATION

A Crossover-Imaged Clustering Algorithm with Bottom-up Tree	957
<i>Chung-I Chang, Nancy P. Lin</i>	
A Framework for Automatic Topic Discovery on subWebs	962
<i>Ok-Ran Jeong, Seunghwa Lee, Eunseok Lee</i>	
A Fusion of Multiple Classifiers Approach Based on Reliability function for Text Categorization	968
<i>Qingxuan Chen, Dequan Zheng, Tiejun Zhao, Sheng Li</i>	
A Modified K-NN Algorithm for Holter Waveform Classification Based on Kernel Function	973
<i>Gang Zheng, Guochao Cao</i>	
A New Clustering Algorithm Based on Artificial Immune System	977
<i>Tao Liu, Yan Zhou, Zhifeng Hu, Zhijie Wang</i>	
A New Efficient Hierarchical Distributed P2P Clustering Algorithm	982
<i>Kai Guo, Zhijing Liu</i>	
A New Search Results Clustering Algorithm Based on Formal Concept Analysis	986
<i>Yun Zhang, Boqin Feng, Yewei Xue</i>	
A Novel Approach to Naive Bayes Web Page Automatic Classification	991
<i>Zhongli He, Zhijing Liu</i>	
A Region-Based Image Segmentation Method with Mean-Shift Clustering Algorithm	996
<i>Yong-mei Zhou, Sheng-yi Jiang, Mei-lin Yin</i>	
A Spatial Overlapping Based Similarity Measure Applied to Hierarchical Clustering	1001
<i>Hong Chen, Gongde Guo, Yu Huang, Tianqiang Huang</i>	
A Vibrating Method Based Cluster Reducing Strategy	1006
<i>Daniel Hsu, Shardrom Johnson</i>	
ACCF: Associative Classification Based on Closed Frequent Itemsets	1010
<i>Xueming Li, Dongxia Qin, Cun Yu</i>	
An Ant-Based Fast Text Clustering Approach Using Pheromone	1015
<i>Fuzhi Zhang, Yujing Ma, Na Hou, Hui Liu</i>	
An Approach of Multiple Classifiers Ensemble Based on Feature Selection	1020
<i>Bing Chen, Hua-Xiang Zhang</i>	
An Efficient Hybrid Hierarchical Document Clustering Method	1025
<i>Yehang Zhu, Benjamin C. M. Fung, Dejun Mu, Yanling Li</i>	
An Improved XML Document Clustering Using Path Feature	1030
<i>Jin-sha Yuan, Xin-ye Li, Li-na Ma</i>	

An Optimized Distributed Clustering Algorithm in Advanced 3-Layer Peer-to-Peer Network	1035
<i>Zhiyi Feng, Zhijing Liu</i>	
Automatic Chinese Text Classification Based on NSVMDT-KNN	1040
<i>QiNan Xu, Zhijing Liu</i>	
Knowledge Extraction from Structured Engineering Drawings	1045
<i>Tong Lu, Yubin Yang, Ruoyu Yang, Shijie Cai</i>	
Bagging One-Class Decision Trees	1050
<i>Chen Li, Yang Zhang</i>	
Clustering Spatial Data with Obstacles Using Improved Ant Colony Optimization and Hybrid Particle Swarm Optimization	1054
<i>Xueping Zhang, Qingzhou Zhang, Zhongshan Fan, Gaofeng Deng, Chuang Zhang</i>	
Clustering-Based Outlier Detection Method	1059
<i>Sheng-yi Jiang, Qing-bo An</i>	
Community Detection in Social Networks Employing Component Independency	1064
<i>Zhongmin Xiong, Wei Wang, Dongmei Huang</i>	
Discovering the Skyline of Subspace Clusters in High-Dimensional Data	1069
<i>Guanhua Chen, Xiuli Ma, Dongqing Yang, Shiwei Tang</i>	
Distributed Clustering Based on K-Means and CPGA	1074
<i>Jun Zhou, Zhijing Liu</i>	
DNA Sequences Classification Based on Immune Evolution Network	1078
<i>Lianhong Wang, Jing Zhang, Xiaofeng Huang, Gufeng Gong</i>	
Domain Sensitive Chinese-English Example Based Machine Translation	1083
<i>Muyun Yang, Hongfei Jiang, Zhao Tiejun, Sheng Li, Daxin Liu</i>	
Fog Detection Using MODIS Data in the Yangtze River Delta	1087
<i>Lan Yang, Yongming Xu, Ming Wei</i>	
Grid Resource Organization and Discovery Based on Hyper Topology Space	1092
<i>Bin Lu, Juan Chen</i>	
Hierarchical Document Classification Based on a Backtracking Algorithm	1097
<i>Cuilong Zhu, Jun Ma, Dongmei Zhang, XiaoHui Han, Xiaofei Niu</i>	
Identification of Flow Pattern in Two-Phase Flow Based on Complex Network Theory	1102
<i>Zhongke Gao, Ningde Jin</i>	
Land Cover Classification in Heihe River Basin with Time Series - MODIS NDVI Data	1107
<i>Juan Gu, Xin Li, Chunlin Huang</i>	
Mining the Features of Environmental Physical Field Influencing Trajectories of Mesoscale Convective Systems Based on Spatial Clustering Analysis	1112
<i>Zhongyang Guo, Xiaoyan Dai, Jianping Wu</i>	
Multi-class Multi-instance Learning for Lung Cancer Image Classification Based on Bag Feature Selection	1117
<i>Liang Zhu, Bo Zhao, Yang Gao</i>	
Performance Impact of Wireless Mesh Networks with Mining Traffic Patterns	1123
<i>Bai Yu, Hong Fei</i>	
Research on Evaluating Urban Comprehensive Competitiveness during Multi-year and the Spatial Characters of Important Cities in China	1128
<i>Chun Dong, Chunhua Wu, Xiaoli Sun</i>	

Study on Tire Imprint Image Recognition Based on FFT Image Differencing Algorithm	1134
<i>Shu Da Wang, Jing Yang Xiao, Zhan Qing Liu, Ji Lai Niu</i>	
Study on Topic Evolution Based on Text Mining	1139
<i>Jinlong Wang, Xueyu Geng, Ke Gao, Lan Li</i>	
Text Classification Based on Rule Mining by Granule Network Constructing	1144
<i>Xia Zhang, Yixin Yin, Xiuyan Meng, Hailong Zhao</i>	
The Application of Data Mining in Electric Short-Term Load Forecasting	1149
<i>Jian-qiang Li, Cheng-lin Niu, Ji-zhen Liu, Jun-jie Gu</i>	
Web Page Categorization Based on k-NN and SVM Hybrid Pattern Recognition Algorithm	1153
<i>Xuelin Shi, Ying Zhao, Xiangjun Dong</i>	
Web Page Classification Based on a Least Square Support Vector Machine with Latent Semantic Analysis	1158
<i>Yong Zhang, Bin Fan, Long-bin Xiao</i>	
X-SPA: Spatial Characteristic PSO Clustering Algorithm with Efficient Estimation of the Number of Cluster	1163
<i>Shuai Li, Xin-Jun Wang, Ying Zhang</i>	

ASSOCIATION RULE MINING

A Heuristic Approach for Fast Mining Association Rules in Transportation System	1168
<i>Zixuan Hong, Fuling Bian</i>	
A Hybrid Method for Discovering Maximal Frequent Itemsets	1173
<i>Fu-zan Chen, Min-qiang Li</i>	
A New Fast Frequent Itemsets Mining Algorithm Based on Forest	1178
<i>Jian Hu, Xiang Yang-Li</i>	
Alarms Association Rules Based on Sequential Pattern Mining Algorithm	1183
<i>Sizu Hou, Xianfei Zhang</i>	
An Efficient Algorithm for Mining Large Item Sets	1188
<i>Hong-Zhen Zheng, Dian-Hui Chu, De-Chen Zhan, Xiao-Fei Xu</i>	
An Efficient Data Structure for Mining Generalized Association Rules	1192
<i>Chieh-Ming Wu, Yin-Fu Huang</i>	
An Optimal Association Rule Mining Algorithm Based on Knowledge Grid	1199
<i>Tao Wen, Gang Wang, Quan Guo, Xuebin Ma</i>	
CODEM: A Novel Spatial Co-location and De-location Patterns Mining Algorithm	1203
<i>You Wan, Jiaogen Zhou, Fuling Bian</i>	
Correlation Analysis of Operation Data and Its Application in Operation Optimization in Power Plant	1208
<i>Cheng-lin Niu, Jian-qiang Li, Ji-zhen Liu, Wen Tan</i>	
Efficiently Mining Maximal Frequent Patterns from Traversals on Weighted Directed Graph Using Statistical Theory	1213
<i>Runian Geng, Xiangjun Dong, Guoling Liu, Wenbo Xu</i>	
Mining Condensed and Lossless Association Rules by Pruning Redundancy	1218
<i>Lu Liu, Yin Chen, Siqing Shan, Lu Yin</i>	
Mining Negative Association Rules in Multi-database	1223
<i>Shiju Shang, Xiangjun Dong, Runian Geng, Long Zhao</i>	

Mining Sequential Pattern Using DF2Ls	1227
<i>Xu Yusheng, Zhang Lanhui, Ma Zhixin, Li Lian, Xiaoyun Chen, Tharam S. Dillon</i>	
PCAR: An Efficient Approach for Mining Association Rules	1232
<i>Peien Feng, Hui Zhang, Qingying Qiu, Zhaoxia Wang</i>	
Query Expansion Based on Topics	1237
<i>Bing Zhang, YaJun Du, HaiMing Li, YuTing Wang</i>	
Technology of Information Push Based on Weighted Association Rules Mining	1242
<i>Jike Ge, Yuhui Qiu, Zuqin Chen, Shiqun Yin</i>	
VTK: Vertical Mining of Top-Rank-K Frequent Patterns	1247
<i>Guo-Dong Fang, Zhi-Hong Deng</i>	
A New Algorithm for Mining Sequential Patterns	1252
<i>Zhuo Zhang, Lu Zhang, Shaochun Zhong, Jiwen Guan</i>	

INDUCTIVE LOGIC PROGRAMMING

Witness and Counter-Example on 3-Valued Model Checking	1257
<i>Jian Guo, Jungang Han, Naiyong Jin</i>	

FUZZY DATABASES

An Approach to Handle Overload in Real-Time Data Stream Management System	1262
<i>Li Ma, Xin Li, Yongyan Wang, Hong-an Wang</i>	
Fuzzy Database Languages Integration Using Expressive Power	1268
<i>Claudia González, Leonid Tineo, José Galindo</i>	
Using FCA to Answer Fuzzy Queries in Cooperative Systems	1273
<i>Hanène Chettaoui, Mohamed Ali Ben Hassine, Narjes Hachani, Habib Ounelli</i>	

COMPUTING WITH WORDS

The Fooling Set Problem for Unary Regular Language Is in NP	1280
<i>Dongcai Shen, Tian Liu</i>	

FUZZY SYSTEMS IN BIOINFORMATICS AND BIOMEDICAL ENGINEERING

A Method Combined on Multi-level Factors for Fingerprint Image Quality Estimation	1285
<i>Xiaosi Zhan, Xiangxu Meng, Yilong Yin, Gongping Yang</i>	
Content Analysis Based Medical Images Fusion with Fuzzy Inference	1291
<i>Yan Na, Hongmin Lu, Ying Zhang</i>	
Fuzzy-Set Based Fast Edge Detection of Medical Image	1296
<i>YanJun Zeng, Chengyuan Tu, Xiaojun Zhang</i>	
Identification of Band Reflectance for Each Category and Land-Cover Classification Using Fuzzy Least-Squares Method	1301
<i>Hao-xiang Wu, Qi-ting Huang, Lian-qing Zhou, Iwao Okutani</i>	
Interaction Detection via Probabilistic Fuzzy Logic for Coupled Dynamical Systems	1308
<i>Qiang Luo, Dongyun Yi</i>	

The Object Enlargement of Fuzzy Concept Lattices	1313
<i>Lei Zhao, Guosheng Cheng</i>	
A New Iris Region Segmentation Method	1317
<i>Qi-Chuan Tian</i>	

FUZZY SYSTEMS IN COMMUNICATIONS AND COMPUTER NETWORKS

A Weighted Fuzzy Clustering Algorithm for Multicast Routing Optimization	1322
<i>Qi Bing, Jun Lu, Yan Long</i>	
Fuzzy Immune PI Control of Networked Control System Based on ADW Time-Delay Prediction	1327
<i>Tingna Shi, Sujuan Wang, Hongwei Fang, Zhengwei Chen</i>	
Fuzzy Reliability Analysis of a Multi-sensor Fusion System	1332
<i>MingHua Jiang, Ming Hu, Tao Peng, YiXiang Ding</i>	
On the Shortest Path to Solve the Problem Based on Vague Sets	1336
<i>Yaling Dou, Hongxing Guo, Jingli Zhou</i>	

FUZZY SYSTEMS IN FINANCIAL ENGINEERING

A KPCA RNN Based Model for the Area Flowing of Graduate Employment Forecasting	1341
<i>Cheng-Ssong Qing, Xiang Sun</i>	
Hedging of American Contingent Claims in an Incomplete Market	1346
<i>Guangqin Li</i>	
TSK Fuzzy Inference System Based GARCH Model for Forecasting Exchange Rate Volatility	1351
<i>Liyang Geng, Junhai Ma</i>	

FUZZY SYSTEMS IN PATTERN RECOGNITION AND DIAGNOSTICS

A Junk Mail Filtering Method Based on LSA and FSVM	1356
<i>Jing-tao Sun, Qiu-yu Zhang, Zhan-ting Yuan, Wen-han Huang, Xiao-wen Yan, Jian-she Dong</i>	
A New Similarity Measure between Intuitionistic Fuzzy Sets Based on a Choquet Integral Model	1361
<i>Lanzhen Yang, Minghu Ha</i>	
A Novel Approach for Network Event Correlation Based on Set Covering	1367
<i>Qihua Zheng, Weihua Hu, Yuntao Qian, Min Yao, Xianglin Wang, Jing Chen</i>	
An Algorithm of Text Categorization Based on Similar Rough Set and Fuzzy Cognitive Map	1372
<i>Xin Zhou, Huaxiang Zhang</i>	
A Fuzzy Logic Map Matching Algorithm	1377
<i>Yongqiang Zhang, Yanyan Gao</i>	
Angle Domain Average and CWT for Fault Detection of Gear Crack	1382
<i>Hui Li, Yuping Zhang, Haiqi Zheng</i>	
Bearing Fault Detection Using Envelope Spectrum Based on EMD and TKEO	1387
<i>Hui Li, Haiqi Zheng</i>	

Chinese Wine Classification through Micrograph Using Combined Feature And Fuzzy Cluster	1392
<i>Xiuhua Tang, Xingbo Sun</i>	
Combining Fuzzy c-Means Classifiers Using Fuzzy Majority Vote	1398
<i>Haidong Yang, Chunsheng Li</i>	
Dynamic Testing Algorithm Based on Rough Sets for Multiple Fault Diagnosis	1402
<i>Lei Gao, Guangzhou Zeng</i>	
Evaluation of Sewing Quality in Appearance Based on Fuzzy Recognition	1409
<i>Yanmei Li, Weiyuan Zhang</i>	
Facial Action Units Recognition Based on Fuzzy Kernel Clustering	1413
<i>Hui Zhao, Zhiliang Wang</i>	
Gear Fault Detection Based on Ensemble Empirical Mode Decomposition and Hilbert-Huang Transform	1418
<i>Shufeng Ai, Hui Li</i>	
Palmpoint Recognition Based on PFI and Fuzzy Logic	1423
<i>Leqing Zhu, Sanyuan Zhang, Rui Xing, Yin Zhang</i>	
The Extraction of Individual Tree-Crown in Aerial Digital Camera Imagery	1428
<i>Feng Zhao, Huaiqing Zhang, Zengyuan Li, Yong Pang</i>	

FUZZY SYSTEMS IN ROBOTICS AND INTELLIGENT CONTROL

A Fuzzy Logic Controller with Adaptive Dynamic Programming Optimization for Traffic Signals	1434
<i>Yi Tian, Dongbin Zhao, Jianqiang Yi</i>	
A New Fuzzy Guaranteed Cost Control Design for a Class of Nonlinear Discrete-Time System with Uncertainties	1439
<i>Shuxian Lun, Dong Wang, Changjian Cheng</i>	
Active Robot Learning for Building Up High-Order Beliefs	1444
<i>Dayou Li, Beisheng Liu, Carsten Maple, Daming Jiang, Yong Yue</i>	
Evaluating Degree of Success in Power Plant Construction Project Based on Fuzzy Neural Network	1449
<i>Yuansheng Huang, Qingchao Liu, Zilong Qiu, Mingyan Wang</i>	
Fuzzy System in Multivehicle Swarming	1454
<i>Hong-yong Yang, Yu-ling Zhang</i>	
Fuzzy Variable Impedance Control for Upper-Limb Rehabilitation Robot	1459
<i>Guozheng Xu, Aiguo Song</i>	
Intelligent Traffic Signal Control Approach Based on Fuzzy-Genetic Algorithm	1464
<i>Xiangjun Cheng, Zhaoxia Yang</i>	
Novel Intelligent Direct Torque Control for Permanent Magnet Synchronous Motor Drive	1469
<i>Jian Wang, Hong-hua Wang, Xiao-ling Yuan, Tian-hang Lu</i>	
Research on Application of Fuzzy Neural Network in Combine Harvester	1474
<i>Yuan Zhou, Ming-shan Liu, Zi-da Zhang, Rong-lian Huang</i>	
Research on the Adaptive Fuzzy Sliding Mode Control of 2-DOF Robot	1479
<i>Dawei Zhang, Shenmin Song</i>	
Robot Action Acquisition by Self-Learning Fuzzy Controller	1484
<i>Songhao Piao, Lining Sun</i>	

Study for AGV Trajectory Control by Using Fuzzy Reasoning	1488
<i>Yanming Wu, Jun Wang, Xiaohong Yin, Han Zhao</i>	
The Design of Mill Automatic Gauge Control System Based on the Fuzzy Proportion Integral Differential Controller	1492
<i>Xiaoye Wang, Yingyuan Xiao, Degan Zhang</i>	
Vector Controlled Permanent Magnet Synchronous Motor Drive Based on Neural Network and Multi Fuzzy Controllers	1497
<i>Xianqing Cao, Liping Fan</i>	

FUZZY SYSTEMS IN SIGNAL PROCESSING AND MULTI-MEDIA

A Fuzzy-SPIHT Image Compression Coding Algorithm Based on Human Visual System	1502
<i>Xing hui Zhang, Kuan sheng Zou, Zhi dong Deng</i>	
A Novel Framework for Enhancing Images Corrupted by Impulse Noise Using Type-II Fuzzy Sets	1507
<i>Roli Bansal, Priti Sehgal, Punam Bedi</i>	
Fast Fractal Image Compression Using Fuzzy Classification	1513
<i>Jinshu Han</i>	

FUZZY OPTIMIZATION AND DESIGN

An Application of Fuzzy Control Based on PLC in the Electrical Control System of Fancy Soap Production	1518
<i>Kun Zhou, Yanmin Song, Xintian Shen, Yurong Yan, Wen Wang</i>	
An Automatic Configuration Algorithm for Distributed Service Process Engine Based on Fuzzy Control	1523
<i>Jian Cao, Yi Wang, Xin'an Ding, Minglu Li</i>	
Brushless DC Motors Control Based on Smith Predictor Modified by Fuzzy-PI Controller	1528
<i>Changliang Xia, Gengming Gao</i>	
Credibility Fuzzy Chance Constrained Models for Crude Oil Scheduling and Storage Management	1533
<i>Cuiwen Cao, Xingsheng Gu, Zhong Xin</i>	
Dealing with Complexity in Large Scale and Structured Fuzzy Systems	1538
<i>Carlos R. García-Alonso</i>	
Design of a PSO Based Fuzzy Logic Controller for Vessel Mooring Shifting System	1545
<i>Zhen Huang, Yongji Wang</i>	
Grinding Process Fuzzy Control System Design and Application Based on MATLAB	1550
<i>Xiaolin Zhang, Hongwei Zhao, Yiming Qi, Li Wang</i>	

FUZZY DECISION ANALYSIS AND SUPPORT

A Framework of Meta-Synthesis Consensus Support System for Group Decision-Making Problems	1555
<i>Wuqi Song, Yijun Liu, Zhengxiang Zhu, Jifa Gu</i>	

A Fuzzy Petri Net Model towards Context-Awareness Based Personalized Recommendation	1561
<i>Jian Ye, Jintao Li, Hongzhou Shi, Xiaoguang Gu, Zhenmin Zhu</i>	
A Fuzzy Support Vector Machine with Weighted Margin for Flight Delay Early Warning	1567
<i>Haiyan Chen, Jiandong Wang, Xuefeng Yan</i>	
A Method for Fuzzy Multi-attribute Decision Making with Preference Information in the Form of Fuzzy Complementary Judgment Matrix	1572
<i>Yanbing Gong, Jiguo Zhang</i>	
A Study on Decision of Appointment Problems under Fuzzy Conditions and the Computer Management System	1577
<i>Aimin Wang, Wenhua Liu</i>	
An Approach to Multi-attribute Interval-Valued Intuitionistic Fuzzy Decision Making with Incomplete Weight Information	1582
<i>Weize Wang, Zhoujing Wang</i>	
Application Interval-Valued Intuitionistic Fuzzy Set to Select Supplier	1587
<i>Zhuo Xiao, Guiwu Wei</i>	
Application of Fuzzy Relative Quality Performance Matrix on the Improvement of Critical to Quality Problems	1592
<i>K. S. Chen, T. W. Chen</i>	
Applying Fuzzy PROMETHEE Method for Evaluating IS Outsourcing Suppliers	1597
<i>Tien-Chin Wang, Lisa Y. Chen, Ying-Hsiu Chen</i>	
Decision-Making of Supplier Involved in New Product Development with Method of Grey Incidence Analysis	1602
<i>Min Wang, Daozhi Zhao</i>	
Fuzzy AHP Evaluation on Road Transportation in Wuhan City Cluster	1607
<i>Rui Zhang, Weihua Chen</i>	
Fuzzy Analytic Hierarchy Process Application to E-government Performance Evaluation	1612
<i>Jun Fei, Ruimin Yao, Lihua Yu</i>	
Fuzzy Measure and Appraisal of Influencing Factors on Real Estate Price Based on Dominance-Based Rough Sets Approach	1617
<i>Chuanjun Zhu, Wenjie Cai, Xinhai Lu</i>	
Fuzzy Random Multi-attribute Decision Making Method	1622
<i>Min Wang</i>	
Fuzzy Synthetic Evaluation on Safety of Fully Mechanized Mining Faces Based on Entropy Weight	1627
<i>Yuzhong Yang, Liyun Wu</i>	
Fuzzy Variable Optimal Selection Model with Multiple Attribute Intervals and Its Application	1632
<i>Ran-hang Zhao, Xiao-li Liu, Wen-yan Chen</i>	
Markov Decision Process Based Multi-agent System Applied to Aeroengine Maintenance Policy Optimization	1637
<i>Jianrong Wang, Shouming Hou, Yingying Su, Jianwei Du, Wanshan Wang</i>	
Optimization on Logistics Capability in Cluster Supply Chain Based on Fuzzy Logic and AHP	1645
<i>Jizi Li, Chunling Liu, Peiling Guo</i>	

Research on Real Estate Early Warning System Based on Decision Tree and Fuzzy Recognition Theory	1650
<i>Jian-zhou Wang, Jin-xing Che, Jin-zhao Liang, Haiyan Lu</i>	
Safety Comprehensive Assessment of Tailing Reservoir Based on Information Entropy and Fuzzy Mathematics	1655
<i>Chundi Si, Enli Chen, Peng Lv</i>	
The Multistage Fuzzy Evaluation of CRM Management about the Power Supply Enterprises Based on Utility Analysis and VAR	1661
<i>Yuansheng Huang, Qingchao Liu, Mingyan Wang, Zilong Qiu</i>	

FUZZY SYSTEMS MODELING AND IDENTIFICATION

A New Approach For TSK-Type Fuzzy Model Design	1666
<i>Babak Rezaee, M. H. Fazel Zarandi</i>	
Extraction of Fuzzy Rules by Using Support Vector Machines	1671
<i>Shuwei Chen, Jie Wang, Dongshu Wang</i>	
Fuzzy Comprehensive Evaluation Method Based on Analytic Hierarchy Process for Fault Risk Analysis of Power Plant Equipment	1676
<i>Yu-jiong Gu, Kun-liang Chen, Kun Yang</i>	
Fuzzy Models Synthesis with Kernel-Density-Based Clustering Algorithm	1682
<i>Szymon Lukasik, Piotr A. Kowalski, Ma-gorzata Charytanowicz, Piotr Kulczycki</i>	
Usage Control Resource Dissemination Model Based on Fuzzy logic	1687
<i>Fengying Wang, Lei Zhao, Caihong Li, Zhen Cheng, Qufei Zhang</i>	

OTHER TOPICS IN FUZZY APPLICATIONS

A Method of Geospatial Modeling and Simulation Based on Geo-AO	1692
<i>Jun Wang, QingXiong Cui, Kun Yang</i>	
A Minimum Coverage Method for Web Service Composition	1699
<i>Zhengdong Zhu, Yahong Hu, Xuehan Dong, Zengzhi Li</i>	
A Model of MDVRPTW with Fuzzy Travel Time and Time-Dependent and Its Solution	1704
<i>Lianxi Hong, Min Xu</i>	
A New Fuzzy Fault Diagnosis Method	1710
<i>Li Li, Yukuen Sun, Yimin Li</i>	
A New Switching Scheme for Multi-model Predictive Control Using Clustering Modeling	1715
<i>Shenggang Xie, Lifang Zhou, Ailiang Ma, Luwen Zhou</i>	
A Novel Approach to Find the Revising and Launching Automobile Type	1720
<i>Jie Lin, Xu Xu</i>	
A Web Based Product Price Forecast Using Fuzzy CBR	1724
<i>Hongchun Yuan, Jinling Ju, Ying Chen, Ming Chen</i>	
A Wide-Neighborhood Algorithm for Monotone Nonlinear Complementarity Problem	1729
<i>Yanli Lv, Mingwang Zhang</i>	
Adaptive Neuro-fuzzy Inference System on Downstream Water Level Forecasting	1734
<i>An-Pei Wang, Heng-Yi Liao, Te-Hsing Chang</i>	

Application of Fuzzy Control in the Stacker Crane of an AS/RS	1739
<i>Fang He, Yueting Chen, Shouhua Zhao</i>	
Application of Texture Analysis in Land Cover Classification of High Resolution Image.....	1744
<i>Guangrong Shen, Apostolos Sarris</i>	
Based on Fuzzy Clustering Theory: Vulnerability Classification Research of Water Resources System	1749
<i>Cuisong Yu, Zhenchun Hao, Jiahu Wang, Zhenhua Wang, Shouchang Hao</i>	
Based on Single-Chip Adaptive Fuzzy Algorithm Escalator Energy-Saving Control System	1754
<i>Hao Liu, Hong He, Sheng-Lei Han, Jin-Rong Yang, Lei Su, Fang Liu</i>	
Building Change Detection Based on Similarity Calibration.....	1758
<i>Yu Meng, Zhongming Zhao, Xin Du, Shu Peng</i>	
Discovery Mechanism Based on the Usability of the Semantic Web Service.....	1763
<i>Zhengdong Zhu, Yahong Hu, Xuehan Dong, Zengzhi Li</i>	
Estimates of Bridge Girder Conditions Based on Fuzzy Inspection Data.....	1768
<i>Nang-Fei Pan, Huaitien Wang, Ming-Der Yang, Kai-Chun Hsu</i>	
Evaluating the Operation Performance of Airport by FMCDM	1772
<i>Yu-Jie Wang, Chao-Shun Kao</i>	
Fabric Handle Clusters Based on Fuzzy Clustering Algorithm.....	1777
<i>Zhaoqun Du, Weidong Yu, Ye Yu, Lei Chen, Yan Ni, Jiaqi Luo, Xiaohan Yu</i>	
Feature Extraction Technique Based on the Perceptive Invariability.....	1782
<i>Jing Liu, Yancong Liu, Chengxin Yan</i>	
FPAA Based Bandwidth Recovery in Satellite Subsystems via Intrinsic Evolution	1786
<i>A. Fathima Jabeen, M. Y. Sanavullah</i>	
FPGA Implementation of Generalized Fuzzy Operations.....	1791
<i>Shuting Cai, Xuesong Chen, Qinruo Wang, Ming Yin</i>	
Fuzzy Comprehensive Evaluation Model for Chinese Sturgeon Habitat Suitability in the Yangtze River	1796
<i>Yuankun Wang, Ziqiang Xia</i>	
Fuzzy Fusion of Multi-sensor Data for Tool Wear Identifying.....	1801
<i>Jianping Liu, Bangyan Ye</i>	
Fuzzy Optimal Design of the Plate-Fin Heat Exchangers by Particle Swarm Optimization.....	1805
<i>Xiaochun Yu, Zhi-qin Cui, Ying Yu, Yi-qiang Shi</i>	
Fuzzy Random Method in Earthquake Disaster Risk Assessment.....	1810
<i>Wenrui Zheng, Jingzhi Zhang</i>	
Fuzzy Synthesis Assessment Research on Coordinate Control among Enterprises of B2B EC	1815
<i>ShiBin Su, ZhenYu Liu</i>	
Measure Research in Regional Intellectual Capital on the Basis of Multifactor Level Fuzzy Evaluation Method.....	1820
<i>Jun-yi Ren</i>	
Multi-model Generalized Predictive Control for Temperature Control System.....	1825
<i>Bin Liu, Zheng Jiang, Kang-ling Fang</i>	
Multiple-Camera-Based Gesture Recognition by MDA Method.....	1830
<i>Cheng-yueh Tsai, Yung-hui Lee</i>	

On (Alpha, Beta) Fuzzy Subalgebras of BCH-Algebras	1835
<i>Feng-xiao Wang, Lu Chen</i>	
Performance Evaluation Model for Transportation Corridor Based On Fuzzy-AHP Approach.....	1839
<i>Ying Ding, Zhenzhou Yuan, Yanhong Li</i>	
Research on Thermal and Moisture Comfort of Fabrics Based on Fuzzy Mathematics	1844
<i>Hua Huang, Li-ping Sun, Ling-jian Kong, Guo-he Wang</i>	
Revising One Time Lag of Water Level Forecasting with Neural Fuzzy System.....	1848
<i>Chin-Hui Liu, Chang-Shian Chen, Chin-Hua Huang</i>	
Road Occupancy Rate Based Fuzzy Logic for Transit Signal Control at Freeway Ramp	1853
<i>Wangtu Xu, Shiwei He, Rui Song, Yu Guo, Leilei Quan</i>	
Some Classes of 3-Gamma c-Critical Graph	1858
<i>Zhen Yu, Hongmei Liu</i>	
Study Effects of Maximum Velocity and Delay Probability on Mixed Traffic Flow.....	1861
<i>Jiaxiu Pan, Sanjuan Kang, Yujuan Liang, Yu Xue</i>	
Testing Hypothesis Concerning Correlation Coefficient with Fuzzy Data	1866
<i>Ching-Ho Leu, Cheng-Che Chen, Chun-Mei Lai</i>	
The Application of Fuzzy Clustering to Oil and Gas Evaluation.....	1875
<i>Shixiang Liu, Linfu Xue</i>	
The Combination of Push and Fuzzy Logic Control for the Production Control of a General Serial Line	1879
<i>Ju-Hua Mo, Min Huang, Xing-Wei Wang</i>	
The Evaluation and Forecasting of Investment Risk of High-Tech SME Based on Fuzzy Comprehensive Evaluation.....	1885
<i>Yanwen Liu, Qian Sun</i>	
Traffic Equilibrium Assignment for Multiclass Network Based on Similarity Measure.....	1890
<i>Xiaoceng Wu</i>	
T-S modeling, Simulation and Control of the Buck Converter	1894
<i>Yuanlong Li, Zhicheng Ji</i>	
Using GM (1,1) Models to Predict Groundwater Level in the Lower Reaches of Tarim River: A Demonstration at Yingsu Section.....	1899
<i>Jianhua Xu, Yaning Chen, Weihong Li</i>	
Using Ontology to Represent Fuzzy Knowledge for Fuzzy Systems.....	1904
<i>Jun Zhai, Weixin Luan, Yiduo Liang, Jiatao Jiang</i>	
Variable Fuzzy Recognition Model and Application of Optimal Selection for Reservoir Flood Operation Schemes	1909
<i>Jingxuan Yuan, Hongxia Han, Yanping Dong</i>	

IMAGE AND MULTI-MEDIA DATA MINING

A New Approach for Facial Expression Recognition Based on Burial Markov Model	1914
<i>Keyang Cheng, Yabi Chen, Yongzhao Zhan</i>	
A New Image Quality Approach Based on Decision Fusion.....	1921
<i>Mingna Liu, Xin Yang</i>	
An Efficient Method of License Plate Location in Natural-Scene Image.....	1926
<i>Haiqi Huang, Ming Gu, Hongyang Chao</i>	

An Image Matching Recognition Approach Based on ICM Icon	1931
<i>Ruixing Yu, Bing Zhu, Ke Zhang, Meibo Lv</i>	
An Improved PIC Algorithm of Background Reconstruction for Detecting Moving Object.....	1935
<i>Dou Zhao , Ding Liu, Yanxi Yang</i>	
Application of Several Non-negative Matrix Factorization-Based Methods in Remote Sensing Image Fusion	1940
<i>Zhi Huang, Xianchuan Yu, Guian Wang, Zhongni Wang</i>	
Face Detection Method Based on a New Nonlinear Transformation of Color Spaces	1945
<i>Zhengzhen Zhang, Yuexiang Shi</i>	
Hailstone Detection Based on Image Mining	1950
<i>Zhiying Lu, Lei Wang, Hongmin Ma, Qimeng Zhang, Huizhen Jia</i>	
Hand Shape Recognition Using Fingertips	1955
<i>Jong-Min Kim, Woong-Ki Lee</i>	
Human Motion Recognition in Video	1960
<i>Lianyang Ma, Zhijing Liu</i>	
Image Retrieval Using Multi-granularity Features of Color and Texture.....	1965
<i>Xiangli Xu, Libiao Zhang, Xiangdong Liu, Zhezhou Yu, Chunguang Zhou</i>	
Information Extraction Based on the Dependency Relationship of Sentences	1970
<i>Chuanhua Zeng, Ai Jin, Qingsong Li</i>	
Locating Reference Points between Fingerprint Images	1975
<i>Xuzhou Li, Fei Yu</i>	
Methods for acquiring geometrical properties in an image employed for determining image stereo-correspondence	1979
<i>Robert Koprowski, Zygmunt Wrobel</i>	
Determining Correspondence in Stereovision Images of Patients with Faulty Posture.....	1983
<i>Robert Koprowski, Zygmunt Wrobel</i>	
Methods of Chlorophyll Concentration Retrieval.....	1987
<i>Xiaoshen Zheng, Wei Li, Wenling Liu, Jing Wang</i>	
Motion Determination Using Non-uniform Sampling Based Density Clustering.....	1992
<i>Yongsheng Sang, Zhang Yi</i>	
MRAPF: Minimum RTT Asymmetric-Path First for Mobile Multi-homed End-to-End Transfer.....	1997
<i>Jiemín Liu, Yuchun Ma, Yuan Gao</i>	
One Method of Plane Direction Measurement by Using of the Grating Fringe	2002
<i>Jie Sun, Zhiling Zhang</i>	
Refining Image Annotation Based on Object-Based Semantic Concept Capturing and WordNet Ontology	2007
<i>Liu Zheng, Ma Jun</i>	
Representative Template Set Generation Method for Pedestrian Detection	2012
<i>Pei Wu, Xian-Bin Cao, Yan-Wu Xu, Hong Qiao</i>	
Research of Face Detection System Applied for Detecting Faces with Complex Background and Illumination.....	2017
<i>Lei Dai, Weijun Li, Xu Chen, Xiaoxian Jin, Yanfeng Qu</i>	
The Corrected Normalized Correlation Coefficient: A Novel Way of Matching Score Calculation for LDA-Based Face Verification.....	2021
<i>Vitomir Štruc, Nikola Pavešić</i>	

Three Dimensional Gesture Recognition Using PCA of Stereo Images and Modified Matching Algorithm.....	2027
<i>Jong-Min Kim, Maeng-Kyu Song</i>	
A Robust Object Detecting and Tracking Method.....	2032
<i>Wei Sun, Bao-long Guo</i>	

TEXT AND WEB MINING

A Biased Summary System and Its Implementation Technology.....	2037
<i>Gongshen Liu</i>	
A Novel Chinese Text Summarization Approach Using Sentence Extraction Based on Kernel Words Recognition.....	2042
<i>Weijie Yang, Ruwei Dai, Xia Cui</i>	
A Practical Approach for Relevance Measure of Inter-sentence.....	2048
<i>Maosheng Zhong, Yi Hu, Lei Liu, Ruzhan Lu</i>	
A Research on Length Based Sentence Alignment for Chinese-English Parallel Corpus.....	2053
<i>Hongying Zan, Xia Zhang, Ming Fan</i>	
A Text Network Representation Model.....	2058
<i>Jianyi Liu, Jinghua Wang, Cong Wang</i>	
Acquiring Commonsense Knowledge about Properties of Concepts from Text.....	2063
<i>Ya-nan Cao, Cungen Cao, Liangjun Zang, Yao Zhu, Shi Wang, Dongsheng Wang</i>	
Acquiring ISA Relations from Chinese Free Text Based on Multiple Patterns.....	2068
<i>Lei Liu, Sen Zhang, Lu Hong Diao, Shu Ying Yan, Cun Gen Cao</i>	
Chinese Text Chunking Using Divide-Conquer Model.....	2073
<i>Yinghong Liang, Jun-Cao, Chunxiang Zhang</i>	
Extracting Feature and Opinion Words Effectively from Chinese Product Reviews.....	2078
<i>Wei Wei, Hongyan Liu, Jun He, Hui Yang, Xiaoyong Du</i>	
Extracting Part-Whole Relations from Unstructured Chinese Corpus.....	2083
<i>Xinyu Cao, Cungen Cao, Shi Wang, Han Lu</i>	
Identification of Complex Named-Entities in Chinese Queries Using WWW.....	2088
<i>Hui Liu, Xueyin Hu, Jinglei Zhao, Maosheng Zhong, Ruzhan Lu</i>	
Improving Information Retrieval within Language Model Framework by Integrating Adjacent and Distant Relation.....	2094
<i>Jian Wen, Zhoujun Li</i>	
Measuring Taxonomic Similarity between Words Using Restrictive Context Matrices.....	2101
<i>Shi Wang, Cungen Cao, Ya-nan Cao, Han Lu, Xinyu Cao</i>	
New Direction of Applied Wavelet Transform in Multilingual Web Information Retrieval.....	2106
<i>Shawki A. Al-Dubae, Nesar Ahmad</i>	
Query Recommendation with TF-IQF Model and Popularity Factor.....	2111
<i>Qi Liu, Minghu Jiang, Zhi Chen</i>	
Recommended or Not? Give Advice on Online Products.....	2116
<i>Bing Qin, Yanyan Zhao, Leilei Gao, Ting Liu</i>	
Study on Natural Language Generation for Spatial Information Representation.....	2121
<i>Fu Ren, Qingyun Du</i>	

Text Information Extraction Based on OWL Ontologies	2125
<i>Hongsheng Wang, Lu Yuan, Hong Shao</i>	
The Research about Web Page Ranking Based on the A-PageRank and the Extended VSM	2131
<i>Yong Zhang, Long-bin Xiao, Bin Fan</i>	

SPATIAL DATA MINING

A Multi-scale Representation Framework for Efficient Mobile GIS Integration	2136
<i>Jun He, Qing Wang, Zigang Li, Wenwen Cai</i>	
Application of Principal Component Analysis and Clustering to Spatial Allocation of Groundwater Contamination	2141
<i>Ting-Nien Wu, Chiu-Sheng Su</i>	
Disaster Assessment Algorithm after Forest Fire Based on GIS	2146
<i>Aijun Xu, Minghui Ma</i>	
Estimation of Chinese Inventories for Historical NMVOCs Emissions from Combustion	2151
<i>Y. Bo, H. Cai, S. D. Xie</i>	
Exploratory Analyses of Geoscience Ontology Infrastructure	2156
<i>Xian-min Li, Guo-qing Li, Wen-yang Yu</i>	
Mining Traffic Condition from Trajectories	2161
<i>Danhuai Guo</i>	
On Efficient Processing of Multiple KNN Queries in Constrained Spatial Networks	2166
<i>Chongsheng Zhang, Zhongbo Wu, Bo Qu, Hong Chen, Xing Hao</i>	
Regional Ecological Environment Spatial Data Mining Based on GIS and RS: A Case Study in Zhangjiajie, China	2171
<i>Li Xu, Qingwen Qi, Zhongyuan Wang</i>	
Segmentation of High-Resolution Remote Sensing Image Based on Marker-Based Watershed Algorithm	2176
<i>Ying Sun, Guo-jin He</i>	
Spatial Data Mining in Settlement Archaeological Databases Based on Vector Features	2182
<i>Shuoben Bi, Shengjun Xue, Yin Xu, Anping Pei</i>	

GRAPHICAL DATA MINING

A Binding Number Computation of Graph	2187
<i>Congying Han, Guoping He, Hua Duan, Xuping Zhang</i>	
A Block-Structured Mining Approach to Support Process Discovery	2191
<i>Liqun Zhang, Haiyang Wang</i>	
A Modification to MC Algorithm Using Data Mining Technique	2197
<i>Xuemei Li, Caiming Zhang, Caiqing Zhang</i>	
Human Head Modeling Based on an Improved Generic Model	2202
<i>Kunhui Lin, Feng Wang, Junfeng Yao, Changle Zhou</i>	
Observation of Blood Flow in Hemo-dialyzer Using CT Imaging Technology	2207
<i>Junfeng Lu</i>	

Visualization of Current Core Research Groups of Enterprise Risk Management	2212
<i>Ping Zhuang, Yanxi Li, Haiyan Hou, Tianpeng Qu</i>	

NETWORKED DATA MINING

A New Approach to Network Anomaly Attack Detection	2217
<i>Hongyu Yang, Lixia Xie, Feng Xie</i>	
An Intelligent Search Algorithm Based on Skyline Query in Unstructured P2P Systems	2222
<i>Xinsheng Wang, Xiaowei Cui, Leigang Dong, Zhenyu Wang, Jun Liu</i>	
Mining Network Traffic for Worm Signature Extraction	2227
<i>Hao Tu, Zhitang Li, Bin Liu</i>	

DATA MINING IN SOFTWARE ENGINEERING

An Improved CURD Algorithm for Source Code Mining	2232
<i>Yangyang Liu, Yang Zhang</i>	
Establishing Knowledge Base of Expert System of Mine Safety Pre-warning Based on Relational Database	2237
<i>Xiaosheng Liu, Qun Sun</i>	
Robust Optimization for Deep-Drawing Process of Sheet Metal Based on CAE with Grey Relational Analysis Method	2242
<i>Yanmin Xie, Shiren Yin, Zhengzhi Luo</i>	

MINING STREAMING DATA

Mining Recent Frequent Itemsets in Data Streams	2247
<i>Kun Li, Yong-yan Wang, Manzoor Ellahi, Hong-an Wang</i>	

SOCIAL INFORMATION MINING

A Dominance-Based Rough Set Approach to Multi-criteria Sorting Decision Analysis	2253
<i>Liping An, Lingyun Tong</i>	
A Web Mining Based Measurement and Monitoring Model of Urban Mass Panic in Emergency Management	2258
<i>Minglu Li, An Chen</i>	
Community Collaborative Filtering	2263
<i>Wei Zhang</i>	

DATA MINING FOR SECURITY ENGINEERING

Real-Time Alert Stream Clustering and Correlation for Discovering Attack Strategies	2268
<i>Jie Ma, Zhi-tang Li, Wei-ming Li</i>	
Towards an Ontology-Based Content Security Scheme	2274
<i>Zili Zhou, Zhao Lu, Junzhong Gu</i>	

Unknown Malicious Executables Detection Based on Run-Time Behavior	2280
<i>Yongtao Hu, Liang Chen, Ming Xu, Ning Zheng, Yanhua Guo</i>	

INTEGRATION OF DATA MINING WITH DATA WAREHOUSING

A Web-Based Data Mining System for Forest Resource Planning System	2285
<i>Hua Tang, Li-Nang Xing</i>	

BIOINFORMATICS AND BIOMEDICAL INFORMATICS

Detection of Protein Subcellular Localization Based on a Full Syntactic Parser and Semantic Information	2290
<i>Mi-Young Kim</i>	
Ions Classification in Peptide Tandem Mass Spectra	2295
<i>Changyong Yu, Guoren Wang, Wendan Zhai</i>	
Splice Site Prediction Based on Characteristic of Sequential Motifs and C4.5 Algorithm	2300
<i>Hequan Sun, Qinke Peng, Quanwei Zhang, Dan Mou</i>	
The Impact of Data Deviation in Inferring a Biological Dynamic System	2306
<i>Jian-xun Chen, Bingchiang Jeng, Wen-Shyong Tzou</i>	
Searching Similar Protein under Complementary and No Stop Codon Constraints	2311
<i>Fei Wang, Zheng Peng</i>	

KNOWLEDGE DISCOVERY IN COMMUNICATIONS AND COMPUTER NETWORKS

A Fuzzy Ontology Generation Framework from Relational Schema	2316
<i>Yanhui Lv, Z. M. Ma, Fu Zhang</i>	
A New Method of Evolution Event Tracking Based on Variable Query	2321
<i>Changwei Zhao, Qinke Peng, Chengwei Li, Quanwei Zhang, Suhuan Sun</i>	
Multi Relational Mining in Network Intrusion Detection	2326
<i>Zhang Youdong</i>	
Ontology-Based Modeling Method for Semantic Telecommunication Services	2330
<i>Dong Cao, Xiaofeng Li, Xiuquan Qiao, Luoming Meng</i>	

DATA MINING FOR PATTERN RECOGNITION AND DIAGNOSTICS

A Novel Arithmetic of Named Entity Identification	2335
<i>Jing Wang, Zhijing Liu</i>	
A Novel Multi-reduced SVM Approach for Speaker Recognition	2340
<i>Ming Li, Ruiling Luo, Yujuan Xing</i>	
C4.5-Based Classification Rules Mining of High-Rise Building SFIO	2345
<i>Shihai Zhang, Shujun Liu, Shizhong Zhang, Jinping Ou, Guangyuan Wang</i>	
Design of Adaptive Observer for Time-Varying Delay System Based on Delay-Dependent Stability and H Infinity Tracking Performance	2351
<i>Bin Wang, Xueli Wu, Cai Liu, Zheng Li</i>	

Risk Evaluation of Urban Fire Based on Alternative Projection Algorithm and EM Algorithm	2355
<i>Qian Ding, Qiaoling Tong, Hengqing Tong</i>	
Study on Semantic Representation of Web Information Based on Repeating Patterns	2360
<i>Kening Gao, Bin Zhang, Yin Zhang, Hongru Wei, Anxiang Ma</i>	

INFORMATION FUSION

A Spatiotemporal Model for Persisting Critical Infrastructure Interdependencies	2365
<i>Chien-Cheng Chou, Chine-Ta Chen, Ssu-Min Tseng, Jyh-Dong Lin</i>	
An Outcome Preference Information Aggregation Model and Its Algorithm in Hypergame Situations	2370
<i>Yong Qu, Yexin Song, Jianjun Zhang</i>	
Approach to Denoising of Local Adaptive Algorithm Based on DT-CWT and Its Application to Auto Transmission Fault Diagnosis	2374
<i>Xiangui Liu, Wuwei Chen</i>	
Comparison of Fusion Algorithms for ALOS Panchromatic and Multi-spectral Images	2379
<i>Wen-yi Liu, Guo-jin He</i>	

OTHER TOPICS IN KNOWLEDGE DISCOVERY APPLICATIONS

A Data Mining Approach to Customer Segment Based on Customer Value	2386
<i>Yun Chen, Chuan Fu, Hanhong Zhu</i>	
A Framework of Intelligent Decision Support System of Military Communication Network Effectiveness Evaluation	2391
<i>Tang Hong, Zhang Jie</i>	
A New Particle Filter and Its Application in Mobile Robot Localization	2395
<i>Yi-min Xia, Yi-min Yang</i>	
A Rule-Based Approach for Student Modeling	2399
<i>Hongyi Liu, Suqin Tang, Li Ma</i>	
A Study on Approaches to Estimate Body Dimensions: Stature as an Example	2404
<i>Wei-Cheng Chao, Eric Min-yang Wang</i>	
An Extensible Model of Product Configuration Knowledge Based on Matter-Element	2409
<i>Lemiao Qiu, Shuyou Zhang, Jinxia Yu, Chunwei Xu</i>	
Application of Intelligent Information Processing Technology for Air Quality Assessment	2416
<i>Sheng-rong Liu, Xiao-qiang Cao</i>	
Cooperative Petition Processing Model Based on Dynamic Workflow Management	2421
<i>Jianhua Han, Weihua Li</i>	
Crime Knowledge Management Based on Intuitionistic Learning System	2428
<i>Ping He</i>	
Data Mining for Complex Thermal System Modeling	2433
<i>Tao Jin, Zhongguang Fu</i>	
Failure Model of Fretting Wear Based on Self-Organizing Method	2438
<i>Anlin Wang, Liang Hu, Yingchao Fu, Tao Jiang, Guangjun Liu</i>	

Improving the Quality of Graduate Education by Association Rules Analysis	2443
<i>Yi Fang, ChunYuan Zhang</i>	
Knowledge Discovery for Case Revising in CBR System	2447
<i>Chuanhua Zeng, Ai Jin, Qingsong Li</i>	
Knowledge Discovery for Support Structure Type Selection of Thrust Bearing Using Bayesian Decision Based on Rough Set	2452
<i>Wei Guo, Xin Song</i>	
Managing Dynamics of Composite Service Level Agreements with COSMA	2457
<i>André Ludwig, Bogdan Franczyk</i>	
Partition Triangle Meshes into Coarsely Quadrangular Segmentation	2463
<i>Hanming Lv, Yang Wang</i>	
Perfect Bayesian Equilibrium Analysis on the Investment Game of R&D Activities of Asymmetry Firms	2468
<i>Renjing Liu, Zhengwen He, Yingluo Wang</i>	
Research of Internet Education System Based on Ontology	2475
<i>Haiyan Wu</i>	
Research on Hybrid Index for Chinese IR	2479
<i>Chen Chen, Sheng Li, Haoliang Qi, Muyun Yang, Tiejun Zhao</i>	
Research on the Reuse of Gear Chamfering Processing Scheme Based on CBR Technology	2484
<i>Wei Guo, Deqiang Xing</i>	
Resources Dispatch Model of Meeting Fatal Forest Disasters Emergency	2490
<i>Da-sheng Wu, Qin-fen Yu, Mei-li Huang, Li-juan Liu</i>	
Return Forecasting and Risk Analysis of Purchasing New Issues in Chinese Primary Market Based on Simulation	2494
<i>Weiya Zhao, Xiutian Zheng</i>	
Study on Semantic-Aware Manufacturing Grid Architecture	2499
<i>Haijun Zhang, Yefa Hu, Fei Tao, Zude Zhou</i>	
Study on Tourism Grey Forecast System Based on Multi-agents	2504
<i>Ruijie Wang, Junping Du, Yixin Yin, Xuyan Tu</i>	
The Application of Expert System to the Screening of Atmospheric Environmental Impact from Comprehensive Road Traffic Planning in Shanghai	2509
<i>Weichun Ma, Xuan Wang, Yan Zhang, Qi Yu</i>	
The Realization of Knowledge Discovery in Total Quality Management System	2516
<i>Xiaoh Wang</i>	
Prediction of Landslide Susceptibility Using logistic Regression: A Case Study in Bailongjiang River Basin, China	2520
<i>S. B. Bai, J. Wang, F. Y. Zhang, A. Pozdnoukhov, M. Kanevski</i>	
Fuzzy Multi-objective Linear Programming Having Probabilistic Constraints: Application in Product-Mix Decision-Making	2525
<i>Ign Suharto, Sani Susanto, Neneng Tintin Rosmiyanti, Arijit Bhattacharya</i>	

DATA VISUALIZATION AND EXPLORATION

A Visual Mining on RVA Results of Hydrologic Alternations along the East River, South China (1952-2002)	2530
<i>Tao Yang, Xi Chen</i>	

Development of an Acupuncture Training System Using Virtual Reality Technology	2536
<i>Ren Kanehira, Atsushi Shoda, Makoto Yagihashi, Hirohisa Narita, Hideo Fujimoto</i>	
EasyMall - An Interactive Virtual Shopping System	2540
<i>Tian Chen, Zhi-geng Pan, Jian-ming Zheng</i>	
Model Retrieval Based on Flattened Shape Comparison in 3D Databases	2545
<i>Guisheng Yin, Huaiyou Chen, Jing Zhang</i>	
Research on a Method of Product Knowledge Representation Based on Ontology	2550
<i>Yan Shen, XiaoPeng Wei, JianWei Wang</i>	
Visual Knowledge Reasoning on Typed Categorical Structure	2555
<i>Qingquan Wang, Lili Rong, Kai Yu</i>	
Visual Analysis of a Co-authorship Network and Its Underlying Structure	2560
<i>Qi Ye, Bin Wu, Bai Wang</i>	

PRIVACY PRESERVATION IN DATA MINING

k-Anonymity via Clustering Domain Knowledge for Privacy Preservation	2565
<i>Taiyong Li, Changjie Tang, Jiang Wu, Qian Luo, Shengzhi Li, Xun Lin, Jie Zuo</i>	

FUZZY DATA MINING AND INFORMATION RETRIEVAL

A Ranking Algorithm via Changing Markov Probability Matrix Based on Distribution Factor	2570
<i>Xianchao Zhang, Xinxin Fan, Xinyue Liu, Hongyu</i>	
Dominance-Based Variable Precision Rough Fuzzy Approach in Fuzzy Information System	2575
<i>Yunsong Qi, Xibei Yang, Huaijiang Sun, Yuqing Song</i>	
Grey Correlation Analysis of Corrosion on Oil Atmospheric Distillation Equipment	2580
<i>Zhengfang Wang, Yong Wang, Jan Zhang, Dawei Qu, Xiuhua Liu</i>	
Mining Positive and Negative Fuzzy Sequential Patterns in Large Transaction Databases	2585
<i>Weimin Ouyang, Qinhua Huang, Shuanghu Luo</i>	
Ontology Concept Similarity in Semantic Query	2591
<i>Chengwen Wu, Dameng Dai, Yi Wan</i>	
Query Expansion based on Concept Clique for Markov Network Information Retrieval Model	2596
<i>Lixin Gan, Shengqian Wang, Mingwen Wang, Zhihua Xie, Lin Zhang, Zhenghua Shu</i>	
SPA-VFS Model for the Prediction of Rockburst	2601
<i>Mingwu Wang, Juliang Jin, Li Li</i>	
Using Vagueness Measures to Re-rank Documents Retrieved by a Fuzzy Set Information Retrieval Model	2606
<i>Stephen Lynn, Yiu-Kai Ng</i>	

FUZZY CONTROL

A Fuzzy Neural Network Controller for Air-Condition with Frequency Change	2611
<i>Zipeng Zhang, Liqin Xue, Shuqing Wang</i>	

A Method of Improving Steady-State Precision of Fuzzy Control	2616
<i>Ming Su, Lunjun Chen</i>	
Adaptive Fuzzy Decentralized Control for a Class of Uncertain Large-Scale Time-Delay Nonlinear Systems	2619
<i>Tao Guo, Jun-ying Zhang</i>	
Approximate Reasoning with Interval-Valued Fuzzy Sets	2624
<i>Baozhen Cui, Wenyi Zeng</i>	
Design of a Model Reference Adaptive Controller for Object Tracking	2629
<i>Kai Cao</i>	
DSC Approach to Robust Adaptive Fuzzy Tracking Control for Strict-Feedback Nonlinear Systems	2634
<i>Tieshan Li, Hanyu Zhang, Xinyu Yang</i>	
Fuzzy-PI Damping Control for Hydraulic Crane Tip	2639
<i>Yong Yang</i>	
Guaranteed Cost Fuzzy Controller Design for Nonlinear Systems with Input Saturation	2644
<i>Sung Wook Yun, Yun Jong Choi, Gyumin Lee, PooGyeon Park</i>	
Guaranteed Cost Tracking Scheme for Wheeled Mobile Robot with Actuator Saturations via T-S Fuzzy Model	2649
<i>Xingquan Gao, Miaomiao Ma, Hong Chen</i>	
Improved Direct Adaptive Fuzzy Controller for Single-Phase Active Power Filter	2654
<i>Yongkun Lu, Chaoying Xia</i>	
Knowledge Acquisition of Fuzzy Control System Based on Improved Genetic Algorithm and Neural Networks	2659
<i>Shuqing Wang, Zipeng Zhang, Liqin Xue</i>	
Non-fragile Passive Control for Uncertain T-S Fuzzy Systems with Time-Delay	2664
<i>Yan Zhang, Qing-ling Zhang, Jin-lan Zhang</i>	
Parallel Distributed Compensation Fuzzy Control Based on Time-Delay Predictive Controller of Time-Delay T-S Model's Subsystems	2669
<i>Shubin Wang, Yanyun Wang, Lingkao Zhang</i>	
Robust Control for a Class of Uncertain Switched Systems	2674
<i>Fei Long, Changzheng Cui, Changlin Li</i>	
Stability of Linear Dynamical Systems with Fuzzy Parameters	2679
<i>Le Hung Lan</i>	
The Qualitative Spatial Reasoning to Mechanical Configuration	2683
<i>Hailin Feng, Chenxi Shao, Yi Xu</i>	
The Sufficient and Necessary Conditions for Fuzzy Systems Possessing Interpolation Property	2688
<i>Fei Yuan, Jian Hou</i>	
Time-Delay Dependent State Feedback Fuzzy-Predictive Control of Time-Delay T-S Fuzzy Model	2693
<i>Shubin Wang, Yanyun Wang, Lingkao Zhang</i>	
Towards the Complexity of Controls for Timed Automata with a Small Number of Clocks	2698
<i>Taolue Chen, Jian Lu</i>	

UNCERTAINTY MANAGEMENT

A Tableau Algorithm for EFSHOIN Ontologies	2703
<i>Bo Zhou, Zhuang Miao, Yafei Zhang, Jianjiang Lu</i>	
An Interval-Parameter Multi-stage Stochastic Chance-Constrained Mixed Integer Programming Model for Inter-basin Water Resources Management Systems under Uncertainty	2708
<i>Y. C. Han, G. H. Huang, C. H. Li</i>	
Analyzing a Paradox in Dempster-Shafer Theory	2716
<i>Wei Xiong</i>	
Application of Fuzzy Multiple Criteria Decision Making in the Selection of Infrastructure Projects.....	2721
<i>Wen-Chih Huang, Junn-Yuan Teng, Maw-Cherng Lin</i>	
DbEr: A New Discretization Algorithm Based on the Entropy of Relation.....	2726
<i>Dan Hu, Xianchuan Yu, Yuanfu Feng</i>	
Enhanced Interval Type-2 Fuzzy Logic Systems with Improved the Output Processing Using Uncertainty Bounds.....	2731
<i>Babak Rezaee</i>	
Fuzzy Knowledge for Agent Oriented Knowledge Management in E-commerce	2737
<i>Wei long Liu, Xin Zhang, Fang Jin</i>	
Genetic Projection Pursuit Interpolation Model for Social Renewability Assessment of Water Resources.....	2742
<i>Chunhui Li, Zhifeng Yang, Gordon Huang, Yanpeng Cai</i>	
Incremental Knowledge Base for Uncertain Reasoning	2749
<i>QingXiang Wu, Xi Huang, David A. Bell, Guilin Qi, Zhihui Luo</i>	
Member Selection of Telework Teams: A Network Fuzzy Management Experiment.....	2755
<i>Na An, Bin He, Jianping Liu, Zeying Li</i>	
Selection of Suppliers Based on Fuzzy Multicriteria Decision Making.....	2760
<i>Feng Kong, Zhiguang Zhang, Ying Liu</i>	
The Evaluation for Cooperative Partner Selection Based on TFN-AHP	2765
<i>Huadong Yang</i>	
The Fuzzy Fixed Charge Transportation Problem and Genetic Algorithm	2770
<i>Linzhong Liu, Xinfeng Yang, Haibo Mu, Yonglan Jiao</i>	
The Research on the Algorithm of Approximately Linearly Dividable Support Vector Classification Machine Based on Fuzzy Theory	2775
<i>Ai-min Wang, Zhimin Yang, Wenying Ge</i>	

ROUGH SETS

A Multi-factor Classified Runoff Forecast Model Based on Rough Fuzzy Inference Method	2781
<i>Wei Pei, Yong-ying Zhu</i>	
An Algorithm for Case-Based Reasoning Based on Similarity Rough Set.....	2786
<i>Sai Ji, Shen-fang Yuan, Shui-ping Wang</i>	
An Attribute Reduction Algorithm for Concept Lattice Based on Discernible Boolean Matrix.....	2791
<i>Daolin Wang, Yingkun Hou, Conghua Wang, Jian Xu</i>	

An Email Classification Model Based on Rough Set and Support Vector Machine	2796
<i>Zhiqing Zhu</i>	
An Improved Intermediate Value Theorem and Rough Fix-Point Theorem of Roughly Continuous Discrete Functions	2801
<i>Yun Wang, Yanyong Guan, Hongkai Wang, Kaiquan Shi</i>	
Attribute composition distribution and rough law status estimation	2806
<i>Shun-liang Huang, Guan-yu Zhang, Ling Zhang, Kai-quan Shi</i>	
Dynamic Morphology Operators Based on the S-Rough Set Theory	2811
<i>Min Fan, Ping Zou, Wen Qi Liu, Xing Dong Zhu</i>	
Fault Diagnosis of Hydraulic Pump Based on Rough Set and PCA Algorithm.....	2816
<i>Siyuan Liu, Wanlu Jiang, Huifeng Niu</i>	
Function S-Rough Sets Method in Feature Selection.....	2821
<i>Haiqing Hu, Pitao Wang, Kaiquan Shi</i>	
Fuzzy Extensions of Rough Approximations Based on Relations.....	2826
<i>Tong-Jun Li</i>	
New Attribute Reduction Based on Rough Set.....	2831
<i>Zhangyan Xu, Dingrong Yuan, Wei Song, Weidong Cai</i>	
On Medical Image Filtering Based on Rough Set Theory	2836
<i>Yi Xie</i>	
On Rough Ideals and Rough Fuzzy Ideals of BCI-Algebras	2841
<i>Lu Chen, Feng-xiao Wang</i>	
Rough Set Model Based on Limited Similarity Dominance Relation.....	2845
<i>Yuqing Gao, Minghu Ha, Xia Zhao, Chunjing Li</i>	

OUTLIER DETECTION

A Novel Outlier Detection Algorithm for Distributed Databases	2850
<i>Jiaogen Zhou, Chunjiang Zhao, You Wan, Wenjiang Huang, Baozhu Yang, Jixin Ge</i>	
Efficient Clustering-Based Outlier Detection Algorithm for Dynamic Data Stream.....	2855
<i>Manzoor Elahi, Kun Li, Wasif Nisar, Xinjie Lv, Hongan Wang</i>	
Generalized Locally Linear Embedding Based on Local Reconstruction Similarity.....	2862
<i>Xianhua Zeng, Siwei Luo</i>	

DECISION TREES

An Efficient Decision Tree Classification Method Based on Extended Hash Table for Data Streams Mining	2867
<i>Zhenzheng Ouyang ,Quanyuan Wu, Tao Wang</i>	
Study on Support Vector Machine Based Decision Tree and Application.....	2872
<i>G. M. Dong, J. Chen</i>	

SEQUENCE PATTERN MINING

An Ontological Characterization of Time-Series and State-Sequences for Data Mining	2877
<i>Jixin Ma, Rongfang Bie, Guoxing Zhao</i>	

Compressing the Set of Frequent Sequential Patterns	2882
<i>Tao Wang</i>	
Double Wedgie: Efficient Filtering Algorithm for Streaming Time Series	2887
<i>Junling Liu, Jiangxiu Liu, Huanliang Sun</i>	
Mining Top-K Closed Frequent Traversal Sequences from Session Streams	2892
<i>Xiaojian Zhang, Huili Peng, Chao Shao</i>	
Sub-frequent Patterns Mining Based on SFP-Tree	2897
<i>Yintian Liu, Yingming Liu, Tao Zeng, Kaikuo Xu, Sunjun Liu</i>	

PARALLEL AND DISTRIBUTED DATA MINING

Heterogeneous Multi-core Design for Information Retrieval Efficiency on the Vector Space Model	2902
<i>Tianzhou Chen, Zhenwei Zheng, Nan Zhang, Jian Chen</i>	
Parallel Data Mining Optimal Algorithm of Virtual Cluster	2907
<i>Jing Wang, Zhijing Liu</i>	
PartSpan: Parallel Sequence Mining of Trajectory Patterns	2912
<i>Shaojie Qiao, Changjie Tang, Shucheng Dai, Mingfang Zhu, Jing Peng, Hongjun Li, Yungchang Ku</i>	

REAL-TIME DATA MINING

Missing Data Compensation Model in Real-Time Traffic Information Service System	2917
<i>Bowen Du, Leishi Xu, Dianfu Ma, Weifeng Lv, Tongyu Zhu</i>	
Real Time Recommendation Utilizing Experts' Experiences	2925
<i>Jingyu Sun, Xueli Yu, Zhili Wu, Xianhua Li</i>	
The Determination of Optimal Excess Air Coefficient Based on Data Mining in Power Plant	2930
<i>Jian-qiang Li, Cheng-lin Niu, Jun-jie Gu, Ji-zhen Liu</i>	

DATA WAREHOUSING AND OLAP

Clustering-Based Dynamic Materialized View Selection Algorithm	2935
<i>An Gong, Weijing Zhao</i>	
Dynamic On-Line Updating Solution for CURE Cubes	2940
<i>Lei Zhang, Xiao-guang Hong</i>	
Mining Interestingness Sub-cubes in Multi-dimensional Data	2945
<i>Xiting Li, Xiuli Ma, Shiwei Tang, Dongqing Yang</i>	
The Model and Realization of Materialized Views Selection in Data Warehouse	2950
<i>Lijuan Zhou, Minhua Wu, Xuebin Ge</i>	

EVENT DETECTION AND TREND TRACKING

Automated Capture of Design Knowledge from Design Process	2956
<i>Xiangjun Fu, Yinghong Peng</i>	

DG-Based DDoS Detection Using Hybrid Strategy	2961
<i>Dan Peng, Guiran Chang, Rui Guo, Yuhai Qin</i>	
Fan Fault Diagnosis System Based on Virtual Prototyping Technology	2966
<i>Zhongjun Yin, Tian Han, Jianfeng Wang</i>	

INTELLIGENT AGENTS AND INTELLIGENT SYSTEMS FOR KNOWLEDGE DISCOVERY

A Multi-agent Architecture for Knowledge Management System	2971
<i>Chuan Zhang, Deyou Tang, Yanxia Liu, Jinguo You</i>	
A New Traffic Flow Model with the Effects of Backward Looking and Relative Current	2976
<i>Tao Liu, Lei Jia, Wen-xing Zhu</i>	
A Solitary Wave Approach to Parallel Optimization for Multi-agent Systems and Computer Networks	2981
<i>Dianxun Shuai, Qing Shuai</i>	
An Integrated Framework for Intelligently Reconfigurable Manufacturing Control System Based on Knowledge Function Block	2986
<i>Bin Wu, Jian-bo Yu, Bing-hai Zhou, Li-feng Xi</i>	
An Ontology-Based Methodology for Semantic Expansion Search	2991
<i>Guobing Zou, Bofeng Zhang, Yanglan Gan, Jianwen Zhang</i>	
Applying Ontology Based Vector Space Model to Web 2.0	2996
<i>Mingwei Yuan, Ping Jiang, Hui Xiao, Jin Zhu</i>	
Autocatalytic-Based Service Locating Algorithm on Grid	3001
<i>Hong He, Sheng-zhong Yuan</i>	
Controllability of a Leader-Follower Dynamic Network With Interaction Time Delays	3006
<i>Bo Liu, Jietao Zou, Jie Zhang, Tianguang Chu, Long Wang</i>	
MU-MAQAS: A P2P based Model Updatable Mobile Automatic Q/A System	3012
<i>Lei Wang</i>	
Ontology-Based Information Content Security Analysis	3017
<i>Pan Yan, Yanping Zhao, Cao Sanxing</i>	
Semantic Measurement of Related Degree between Unknown Word and Related Word for Automatic Extension of Lexical Dictionary	3022
<i>Myunggwon Hwang, Byungsu Youn, Ilyong Chung, Pankoo Kim</i>	
The Research on Customer Lifetime Value in Multi-agent Artificial Market	3027
<i>Fu Chuan, Chen Yun</i>	
Towards Workflow Oriented Virtual Enterprise Based on Policy Driven and Multi-agent Service Composition	3033
<i>Jingfan Tang, Ming Xu, Ming Jiang</i>	
Using Intelligent Agent Technique to Setup and Administer Mobile Peer-to-Peer Network	3038
<i>Ye Liang, Lin-lin Ci, Hui He</i>	

OTHER FUNDAMENTAL ISSUES OF KNOWLEDGE DISCOVERY

A Description Method for Interactions of Graphical Interfaces	3043
<i>Lei Lu, Caiming Zhang, Caihong Liu</i>	

A Fast Approach to Explore the Reduction of Concept Lattice	3048
<i>Wenbo Liu, Bingyao Jin, Jiye Wang</i>	
A Prioritized Default Extension to Description Logic Knowledge Base	3052
<i>Shaohua Liu, Junsheng Yu, Yinglong Ma, Bing Xu, Yuan Mai, Min Zhou</i>	
A Study on Achievable Rates for Source-Destination Pair in Wireless Sensor Networks	3057
<i>Yuan Zhang, Zhongtian Jia, Ju Liu</i>	
Application of Improved Algorithm of Data Reduction to Knowledge Discovery of Information Security Management	3062
<i>Xiaoling Hao, Ming Li</i>	
Backwards Search Algorithm of Double-Sorted Inter-relevant Successive Trees	3067
<i>Zhuoer Li, Chenghong Zhang, Yunfa Hu</i>	
Computing the Number Restriction Deduced from the Existential Restriction in Description Logic with Primitive Negation, Existential Restriction and Number Restriction	3072
<i>Wei Zhang, Junming Qin, Ju Wang, Yuncheng Jiang</i>	
Graph-Based Knowledge Representation Model and Pattern Retrieval	3077
<i>Qiang Qu, Jiangnan Qiu, Chenyan Sun, Yanzhang Wang</i>	
Knowledge Discovery from Virtual Enterprise Model Based on Semantic Annotation	3082
<i>Chengzhu Sun, Xiaofei Xu, Xiangyang Li, Shengchun Deng</i>	
Mining Frequent Independent Patterns and Frequent Correlated Patterns Synchronously	3088
<i>Zhongmei Zhou</i>	
Some Results on Order-Consistent Logic Programs	3093
<i>Yisong Wang, Xinqiang Ma</i>	
Study on Knowledge Management Model Based on Business Process	3098
<i>Ziye Li, Youmin Xi, Jing Ge</i>	
Topological Distance Function in Formal Concept Lattice	3106
<i>Lishi Zhang, Shengzhe Gao, Liyan Qi</i>	
Using AHP to Assess a Plan of Training the Adolescent Golf Player	3111
<i>Wei-Hsin Chou</i>	
The Automated Estimation of Content-Terms for Query-Focused Multi-document Summarization	3116
<i>Tingting He, Wei Shao, Fang Li, Zongkai Yang, Liang Ma</i>	

TIME-SERIES AND SEQUENTIAL DATA MINING

A GARCH Modeling Approach for Constant Speed Drive Residual Life Predicting of Aircraft Generator	3121
<i>Xiaofei Du, Yuanjun Zhou</i>	
Application of Chaotic Phase Space Reconstruction into Nonlinear Time Series Prediction in Deep Rock Mass	3127
<i>Yong Kang, Xiaohong Li, Yiyu Lu, Chunhe Yang</i>	
Application of Relevance Vector Machine to Downscale GCMs to Runoff in Hydrology	3132
<i>Hua Chen, Wei Xiong, Jing Guo</i>	
Assessment Model Based on Markov Chain	3136
<i>Huiqun Ma, Ling Liu, Tao Chen</i>	
Data Evolution and Its Modeling	3140
<i>Deyou Tang, Jianqing Xi, Jinguo You, Chuan Zhang, Shujun Xu</i>	

Data Mining on Algae Concentrations (Chlorophyll) Time Series in Source Water Based on Wavelet	3145
<i>Jinsuo Lu, Tinglin Huang, Rui Hu</i>	
Embedded Sensor of Forecast Conveyer Belt Breaks	3151
<i>Yong Guan, Jie Zhang, Yuanyuan Shang, Minhua Wu, Xumin Liu</i>	
Ethernet-Based Computer Monitoring the Roof Abscission Layer With Experts Forecasting System.....	3156
<i>Yong Zhan, Xianghong Yan, Hongmei Zhu, Yang Song</i>	
Forecasting Crime Using the ARIMA Model	3161
<i>Peng Chen, Hongyong Yuan, Xueming Shu</i>	
Intelligent Circuit Breaker Forecasting and Prewarning System Research	3165
<i>Jiaomin Liu, Li Li, Yaxuan Li, Peng Liu</i>	
Method Discussion on Estimation for the Demand of Orchard Land in the Overall Plan for the Land Utilization - A Case Study of Hubei Province	3169
<i>Lilan Su, Yanfang Liu</i>	
Mining Weighted Closed Sequential Patterns in Large Databases.....	3174
<i>Jia-Dong Ren, Jing Yang, Yan Li</i>	
New Method for Estimating Periods in Hydrologic Series Data	3179
<i>Yan-fang Sang, Dong Wang</i>	
Pattern Recognition by DTW and Series Data Mining in 3D Stratum Modelling and 3D Visualization	3184
<i>Qiang Chen, Chao Mo Zhang, Ying Fang Zhang, Wan Qing Song</i>	
Real Time Multi-step Prediction for Shipborne Helicopter Platform Motion.....	3189
<i>Dong Wei, Jiawei Ye, Xilong Zhang, Bo Zhang, Xi Wu</i>	
Spatial and Temporal Characteristics of Cloud to Ground Lightning in Guizhou Province.....	3194
<i>Yanwe Li, Na Wei, Shengjie Niu, Ning Luo, Jifen Wen, Haojun Huang</i>	
Variation Characteristics of Aerosol Optical Depth at 14 Meteorological Observatories over China during 1961-2005	3199
<i>Xiaofeng Xu, Shengjie Niu, Jinhuan Qiu</i>	
Short-Term Traffic Flow Forecasting Based on MARS	3203
<i>Shengqi Ye, Yingjia He, Jianming Hu, Zuo Zhang</i>	

GRANULAR COMPUTING

An Approach for Constructing Hierarchy of Granules Based on Fuzzy Concept Lattices.....	3210
<i>Shen-Ming Gu, Si-Xi Zhu, Qi-Hong Ye</i>	
Research on the Grey Rough Set Modeling and Its Properties Using Constructive Method	3216
<i>Shun-xiang Wu, Jun-bin Yang, Jian-huai Cai, De-lin Luo</i>	

Author Index