

D A Karras

List of Publications by Year in descending order

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170
papers

1,406
citations

623734

14
h-index

395702

33
g-index

172
all docs

172
docs citations

172
times ranked

1031
citing authors

#	ARTICLE	IF	CITATIONS
1	Computer-aided tumor detection in endoscopic video using color wavelet features. IEEE Transactions on Information Technology in Biomedicine, 2003, 7, 141-152.	3.2	402
2	CoLD: a versatile detection system for colorectal lesions in endoscopy video-frames. Computer Methods and Programs in Biomedicine, 2003, 70, 151-166.	4.7	116
3	A new class of Zernike moments for computer vision applications. Information Sciences, 2007, 177, 2802-2819.	6.9	106
4	An efficient constrained learning algorithm with momentum acceleration. Neural Networks, 1995, 8, 237-249.	5.9	76
5	An efficient constrained training algorithm for feedforward networks. IEEE Transactions on Neural Networks, 1995, 6, 1420-1434.	4.2	61
6	Fault tree analysis and fuzzy expert systems: Early warning and emergency response of landfill operations. Environmental Modelling and Software, 2009, 24, 8-25.	4.5	52
7	On neural network techniques in the secure management of communication systems through improving and quality assessing pseudorandom stream generators. Neural Networks, 2003, 16, 899-905.	5.9	33
8	Fast numerically stable computation of orthogonal Fourier-Mellin moments. IET Computer Vision, 2007, 1, 11-16.	2.0	30
9	Efficient computation of Zernike and Pseudo-Zernike moments for pattern classification applications. Pattern Recognition and Image Analysis, 2010, 20, 56-64.	1.0	30
10	Pattern classification by using improved wavelet Compressed Zernike Moments. Applied Mathematics and Computation, 2009, 212, 162-176.	2.2	28
11	Solving the linear interval tolerance problem for weight initialization of neural networks. Neural Networks, 2014, 54, 17-37.	5.9	28
12	Efficient information theoretic strategies for classifier combination, feature extraction and performance evaluation in improving false positives and false negatives for spam e-mail filtering. Neural Networks, 2005, 18, 799-807.	5.9	22
13	Detection of lesions in endoscopic video using textural descriptors on wavelet domain supported by artificial neural network architectures. , 0, , .		21
14	New PDE-based methods for image enhancement using SOM and Bayesian inference in various discretization schemes. Measurement Science and Technology, 2009, 20, 104012.	2.6	21
15	Supervised and unsupervised neural network methods applied to textile quality control based on improved wavelet feature extraction techniques. International Journal of Computer Mathematics, 1998, 67, 169-181.	1.8	17
16	A Global Optimization Algorithm for Intelligent Electromechanical Control System with Improved Filling Function. Scientific Programming, 2022, 2022, 1-10.	0.7	16
17	Image coding using a wavelet based Zernike moments compression technique. , 0, , .		15
18	Transfer function determination of singular systems using the DFT. IEEE Transactions on Circuits and Systems, 1989, 36, 1140-1142.	0.9	14

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19	Evaluation of Security Vulnerability Scanners for Small and Medium Enterprises Business Networks Resilience towards Risk Assessment. , 2019, , .		14
20	Evaluation of textural feature extraction schemes for neural network-based interpretation of regions in medical images. , 0, , .		13
21	Modified Factorial-Free Direct Methods for Zernike and Pseudo-Zernike Moment Computation. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 2121-2131.	4.7	12
22	On efficient multistep non-linear time series prediction in chaotic diode resonator circuits by optimizing the combination of non-linear time series analysis and neural networks. Engineering Applications of Artificial Intelligence, 2009, 22, 32-39.	8.1	12
23	An optimization technique for intrusion detection of industrial control network vulnerabilities based on BP neural network. International Journal of Systems Assurance Engineering and Management, 2022, 13, 576-582.	2.4	12
24	Neural network training and simulation using a multidimensional optimization system. International Journal of Computer Mathematics, 1998, 67, 33-46.	1.8	10
25	Color image watermarking via Quaternion Radial Tchebichef Moments. , 2013, , .		10
26	An update of the DEF database of protein fold class predictions. Nucleic Acids Research, 1997, 25, 235-235.	14.5	9
27	Two-stage hybrid tuning algorithm for training neural networks in image vision applications. International Journal of Signal and Imaging Systems Engineering, 2008, 1, 58.	0.6	8
28	Revisiting the Problem of Weight Initialization for Multi-Layer Perceptrons Trained with Back Propagation. Lecture Notes in Computer Science, 2009, , 308-315.	1.3	8
29	On the implementation of ant colony optimization scheme for improved channel allocation in wireless communications. , 2008, , .		7
30	Image compression using the wavelet transform on textural regions of interest. , 0, , .		6
31	Improved MR image reconstruction from sparsely sampled scans based on neural networks. Pattern Recognition Letters, 2001, 22, 35-46.	4.2	6
32	Improved defect detection using support vector machines and wavelet feature extraction based on vector quantization and SVD techniques. , 0, , .		6
33	Improved spam e-mail filtering based on committee machines and information theoretic feature extraction. , 0, , .		6
34	Fast Computation of Orthogonal Fourier-Mellin Moments Using Modified Direct Method. , 2007, , .		6
35	Compression of MRI images using the discrete wavelet transform and improved parameter free Bayesian restoration techniques. , 2009, , .		6
36	On an efficient modification of singular value decomposition using independent component analysis for improved MRS denoising and quantification. Measurement Science and Technology, 2009, 20, 104021.	2.6	6

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37	A Preliminary Analysis of the Perception Gap between Employers and Vocational Students for Career Sustainability. Sustainability, 2021, 13, 11327.	3.2	6
38	On edge detection in MRI using the wavelet transform and unsupervised neural networks. , 0, , .		5
39	Efficient medical image compression/reconstruction applying the discrete wavelet transform on texturally clustered regions. , 0, , .		5
40	Efficient information theoretic extraction of higher order features for improving neural network-based spam e-mail categorization. Journal of Experimental and Theoretical Artificial Intelligence, 2006, 18, 523-534.	2.8	5
41	Performance of the Orthogonal Moments in Reconstructing Biomedical Images. , 2009, , .		5
42	A Robust Meaning Extraction Methodology Using Supervised Neural Networks. Lecture Notes in Computer Science, 2002, , 498-510.	1.3	5
43	Improved Statistical Classification Methods in Computerized Psychiatric Diagnosis. Medical Decision Making, 2000, 20, 95-103.	2.4	4
44	Improved Multistep Nonlinear Time Series Prediction by applying Deterministic Chaos and Neural Network Techniques in Diode Resonator Circuits. , 2007, , .		4
45	Improved Video Compression Schemes of Medical Image Sequences based on the Discrete Wavelet Transformation of Principal Textural Regions and Intelligent Restoration Techniques. , 2007, , .		4
46	On Multi Agent based modeling and control in large scale wireless communication systems for improved resource allocation performance. Telecommunication Systems, 2013, 52, 1657-1675.	2.5	4
47	Optical Character Recognition Using Novel Feature Extraction & Neural Network Classification Techniques. , 0, , .		3
48	Pattern classification using a generalised Hamming distance metric. , 0, , .		3
49	Comparison of learning algorithms for feedforward networks in large scale networks and problems. , 0, , .		3
50	Overfitting in multilayer perceptrons as a mechanism for (pseudo)random number generation in the design of secure electronic commerce systems. , 0, , .		3
51	Security modeling of electronic commerce infrastructures. , 0, , .		3
52	A novel suite of tests for evaluating one-way hash functions for electronic commerce applications. , 0, , .		3
53	Neural network models based on regularization techniques for off-line robot manipulator path planning. , 0, , .		3
54	Accelerating batched 1D-FFT with a CUDA-capable computer. , 2010, , .		3

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55	Reliable estimation of a neural network's domain of validity through interval analysis based inversion. , 2015, , .		3
56	On novel efficient wireless access network design heuristic algorithms for QoS multiservice networks. , 2016, , .		3
57	An Improved Text Categorization Methodology Based on Second and Third Order Probabilistic Feature Extraction and Neural Network Classifiers. Lecture Notes in Computer Science, 2006, , 9-20.	1.3	3
58	Efficient Non Linear Time Series Prediction Using Non Linear Signal Analysis and Neural Networks in Chaotic Diode Resonator Circuits. , 2007, , 329-338.		3
59	On the Multi-threading Approach of Efficient Multi-agent Methodology for Modelling Cellular Communications Bandwidth Management. , 2008, , 431-443.		3
60	A Multi-agent Architecture for Designing and Simulating Large Scale Wireless Systems Resource Allocation. Lecture Notes in Computer Science, 2007, , 405-415.	1.3	3
61	A fast constrained learning algorithm based on the construction of suitable internal representations. , 0, , .		2
62	Improved MRI reconstruction from reduced scans k-space by integrating neural priors in the Bayesian restoration. , 0, , .		2
63	Improving pseudorandom bit sequence generation and evaluation for secure Internet communications using neural network techniques. , 0, , .		2
64	Traffic engineering in multi-service networks comparing genetic and simulated annealing optimization techniques. , 2004, , .		2
65	Heuristic Algorithms for Efficient Wireless Multimedia Network Design. , 0, , .		2
66	On Improved MRI Segmentation Using Hierarchical Computational Intelligence Techniques and Textural Analysis of the Discrete Wavelet Transform Domain. , 2007, , .		2
67	A Multi-Agent Simulation Model for Wireless Communications Involving an Improved Agent Negotiation Scheme Based on Real Time Event Scheduling Mechanisms. , 2008, , .		2
68	Evaluating novel DCA variations for efficient channel assignment in cellular communications through a generic Java simulation system. , 2011, , .		2
69	Semi-parametric estimation without searching in function space: application to in vivo metabolite quantitation. Measurement Science and Technology, 2011, 22, 114014.	2.6	2
70	<i>In vivo</i> MRS metabolite quantification using genetic optimization. Measurement Science and Technology, 2011, 22, 114004.	2.6	2
71	On the efficient design of a generic emulator module towards precise simulation of wireless sensor networks using XML. , 2014, , .		2
72	On the detailed design issues of a multi-agent architecture based on CUDA threads towards efficiently Simulating WSN Systems. , 2015, , .		2

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73	Virtually Together: Developing a Local Social Network for Neighborhoods. <i>Bulletin of Science, Technology and Society</i> , 2021, 41, 10-19.	2.9	2
74	A Neural-Network Clustering-Based Algorithm for Privacy Preserving Data Mining. <i>Communications in Computer and Information Science</i> , 2010, , 269-276.	0.5	2
75	Strong Pseudorandom Bit Sequence Generators Using Neural Network Techniques and Their Evaluation for Secure Communications. <i>Lecture Notes in Computer Science</i> , 2002, , 615-626.	1.3	2
76	On Cellular Network Channels Data Mining and Decision Making through Ant Colony Optimization and Multi Agent Systems Strategies. <i>Lecture Notes in Computer Science</i> , 2009, , 372-387.	1.3	2
77	On a Novel Simulation Framework and Scheduling Model Integrating Coverage Mechanisms for Sensor Networks and Handling Concurrency. <i>Communications in Computer and Information Science</i> , 2010, , 277-286.	0.5	2
78	Introducing Intelligent Agents Potential into a competent Integral Multi-Agent Sensor Network Simulation Architecture Design. <i>Journal of Software Engineering and Applications</i> , 2013, 06, 42-48.	1.1	2
79	A Systematic Review of Analytical Management Techniques in Business Process Modelling for SMEs Beyond What-if-Analysis and Towards a Framework for Integrating Them with BPM. , 2017, , .		2
80	A neural network for estimating the parameters of multiple sinusoids. , 0, , .		1
81	Neural networks in multidimensional problems: a case study for questionnaire classification. , 0, , .		1
82	A novel neural network training technique based on a multi-algorithm constrained optimization strategy. , 0, , .		1
83	Information systems based on neural network and wavelet methods with application to decision making, modeling and prediction tasks. <i>Kybernetes</i> , 1998, 27, 224-236.	2.2	1
84	Efficient Digital Fingerprint Production and Evaluation for Secure Communication Systems Based on Genetic Algorithms. <i>Lecture Notes in Computer Science</i> , 2004, , 628-633.	1.3	1
85	Time series modeling of endocardial border motion in ultrasonic images comparing support vector machines, multilayer perceptrons and linear estimation techniques. <i>Measurement: Journal of the International Measurement Confederation</i> , 2004, 36, 331-345.	5.0	1
86	Discretization schemes and numerical approximations of PDE inpainting models and a comparative evaluation on novel real world MRI reconstruction applications. , 0, , .		1
87	Efficient segmentation in MRI applying discrete wavelet transform and topology preserving neural networks. , 0, , .		1
88	Efficient Computation of Orthogonal Moments by Suppressing the Factorial Terms. , 0, , .		1
89	A Framework for Traffic Engineering and Routing in Survivable Multi-service High Bit Rates Optical Networks. <i>Proceedings ELMAR</i> , 2006, , .	0.0	1
90	An Efficient Invariant Image Recognition Methodology using Wavelet Compressed Zernike Moments Denoised through Self Organizing Maps. , 2007, , .		1

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91	On Efficient Security Modelling of Complex Interconnected Communication Systems based on Markov Processes. , 2008, , .		1
92	A new modification of Singular Value Decomposition using Independent Component Analysis with applications to MRS imaging quantification. , 2008, , .		1
93	An Efficient Fuzzy Expert System Architecture for Landfill Operation Reliability Management. Journal of Intelligent Systems, 2008, 17, .	1.6	1
94	Dealing with peaks overlapping issue in quantifying metabolites in MRSI. , 2009, , .		1
95	An Efficient Cross Layer Intra and Inter Domain Mobility Solution for IEEE 802.16e Mobile WiMAX. , 2009, , .		1
96	On privacy-enhancing architectures for distribution of real time performance demanding mobile services. International Journal of Electronic Security and Digital Forensics, 2009, 2, 377.	0.2	1
97	Imaging systems and techniques. Measurement Science and Technology, 2009, 20, 100101.	2.6	1
98	On quantifying MRS metabolites using a constrained Genetic Algorithm. , 2010, , .		1
99	Handling arbitrary unknown lineshape in in vivo MRS without searching in function space. , 2010, , .		1
100	Face detection in complex backgrounds based on the integration of neural classifiers through similarity analysis of higher order representation patterns. , 2011, , .		1
101	Improved compression of MRSI images involving the discrete wavelet transform and an integrated two level restoration methodology comparing different textural and optimization schemes. , 2013, , .		1
102	Lung cancer pathology discrimination techniques using time series analysis. , 2013, , .		1
103	Two-Stage Evolutionary Quantification of In Vivo MRS Metabolites. , 2015, , 537-560.		1
104	Dynamic channel assignment algorithms for supporting QoS based services in wireless cellular environments. , 2015, , .		1
105	An Improved Modular Neural Network Model for Adaptive Trajectory Tracking Control of Robot Manipulators. Lecture Notes in Computer Science, 2009, , 1063-1070.	1.3	1
106	A Constrained Genetic Algorithm with Adaptively Defined Fitness Function in MRS Quantification. Communications in Computer and Information Science, 2010, , 257-268.	0.5	1
107	Minimum Distance Pattern Classifiers Based On A New Distance Metric. , 1993, , 1021-1021.		1
108	A Hardware Based Novel Educational Methodology for Teaching Microprocessor Architectures Using Object Oriented Approach. International Review on Computers and Software, 2015, 10, 1071.	0.1	1

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109	Towards a Thorough Evaluation Framework of Software Tools Suitable for Small and Medium Size Enterprises Focusing on Modelling and Simulating Business Processes. Lecture Notes in Business Information Processing, 2017, , 161-182.	1.0	1
110	A Systematic Review of Analytical Management Techniques Applied to Competition Analysis Modeling Towards a Framework for Integrating them with BPM. Lecture Notes in Business Information Processing, 2018, , 166-185.	1.0	1
111	An Effective Statistical Test Suite for Pseudorandom number Generators in Digital Signatures and Security Robustness Evaluation including a Wavelet Test for Randomness. , 2020, , .		1
112	A low cost pattern classifier based on coding techniques. , 1990, , .		0
113	Comment: Neural network for estimation of parameters of sinewave. Electronics Letters, 1992, 28, 1750.	1.0	0
114	Hopfield-Tank neural net: Walsh to Fourier transform. Neurocomputing, 1992, 4, 37-41.	5.9	0
115	An efficient constrained learning algorithm for optimal linear separability of the internal representations. , 1994, , .		0
116	Encoding of characters for OCR applications. , 1994, , .		0
117	Tracking endocardial border motion in ultrasonic images by using neural networks and ARIMA modelling techniques. , 0, , .		0
118	A classification approach to image structure segmentation based on the wavelet transform. , 0, , .		0
119	On feature selection methods in the application of neural networks to social sciences. , 0, , .		0
120	Neural network based textural labeling of images in multimedia applications. , 1999, , .		0
121	MR image reconstruction from sparsely sampled scans based on multilayer perceptrons and using regularization techniques. , 2000, , .		0
122	Neural network reconstruction of MR images from noisy and sparse k-space samples. , 0, , .		0
123	Uuinformation-theoretic reconstruction of moment-coded grey-scale images. , 0, , .		0
124	Improved Bayesian MRI reconstruction involving neural priors based on a regularization approach. , 0, , .		0
125	Neural network based benchmarks in the quality assessment of message digest algorithms for digital signatures based secure Internet communications. , 0, , .		0
126	Optimizing the structure of hierarchical mixture of experts using genetic algorithms. , 0, , .		0

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127	Traffic engineering and routing in survivable multi-service networks. , 0, , .		0
128	Two-stage neural network models for MR image reconstruction from sparsely sampled k-space. , 0, , .		0
129	A combined genetic optimization and multilayer perceptron methodology for efficient digital fingerprint modeling and evaluation in secure communications. , 2004, , .		0
130	Improved MRI Mining by Integrating Support Vector Machine Priors in the Bayesian Restoration. Lecture Notes in Computer Science, 2005, , 325-333.	1.3	0
131	Efficient reconstruction of moment-coded noisy medical images using maximum entropy. , 0, , .		0
132	Robust Defect Detection Using Improved Higher Order Wavelet Descriptors and Support Vector Machines for Visual Inspection Systems.. , 0, , .		0
133	Improved MRI Restoration by Integrating Bayesian formalism and Support Vector Machines in a Time Delayed priors Framework. , 0, , .		0
134	A Second Order Spread Spectrum Watermarking Scheme Using Multi-Threshold Wavelet Codec. , 0, , .		0
135	Multi-threading as a Tool for Efficient Simulation of Wireless Communication Systems. , 2007, , .		0
136	Genetic Optimization Methods for Traffic Engineering Problems in Multi-Service High Speed Optical Networks. Journal of Intelligent Systems, 2007, 16, .	1.6	0
137	A Robust Hierarchical Neural Network Methodology for Improved Image Classification Performance. , 2007, , .		0
138	Highly Compressed Zernike Moments by Smoothing. , 2007, , .		0
139	A Robust Feature Extraction Methodology for Improved Face Detection Performance within a Complex Background. , 2007, , .		0
140	On Improved Event Scheduling Mechanisms for Wireless Communications Simulation Modelling. , 2008, , .		0
141	Interpretation of Coherence Phase and Rhythmic Cumulant Results; A Simulation Study. , 2009, , .		0
142	Non-Linear Analysis and Time Series Prediction of an Electrical Analogue of the Mechanical Double Pendulum. , 2009, , .		0
143	An Efficient Distributed Event Scheduling Algorithm for Large Scale Wireless Communications Simulation Modelling. , 2009, , .		0
144	Content based MRSI image indexing and retrieval involving a fuzzy descriptor. , 2010, , .		0

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145	Imaging Systems and Techniques 2011. Measurement Science and Technology, 2012, 23, 110101.	2.6	0
146	A computational intelligence framework for NMR spectroscopy imaging and retrieval. , 2012, , .		0
147	On defining an hierarchical Secure proxy agent architecture for embedded communication network applications. , 2012, , .		0
148	Modeling efficient dynamic channel assignment schemes for quality of service wireless multimedia telecommunications through an extended and integrated Java simulation framework. , 2012, , .		0
149	New optimization models for survivability-supported traffic engineering in multi-service networks. , 2012, , .		0
150	On content based MRSI retrieval integrating fuzzy descriptors in the wavelet domain. , 2013, , .		0
151	On improved modeling and simulation of wireless communication systems using multiagent and multi-threading systems architectures for efficient spectrum reuse. , 2014, , .		0
152	On Scalable and Efficient Security Risk Modelling of Cloud Computing Infrastructure based on Markov processes. ITM Web of Conferences, 2017, 9, 03006.	0.5	0
153	Using NASL based Superscripts to measure System Security through Analyzing and Organizing attacks. , 2019, , .		0
154	On Efficient Scheduling Schemes in Multiagent Wireless Sensor Networks Simulation Systems. , 2019, , .		0
155	A SUPPORT VECTOR MACHINE FUNCTION APPROXIMATION APPROACH FOR SOLVING THE INVERSE MODELING PROBLEM IN INTELLIGENT ROBOTICS APPLICATIONS. , 2002, , .		0
156	An Empirical Test Suite for Message Authentication Evaluation in Communications Based on Support Vector Machines. Lecture Notes in Computer Science, 2004, , 622-627.	1.3	0
157	On the Integration of Neural Classifiers through Similarity Analysis of Higher Order Features. Lecture Notes in Computer Science, 2009, , 361-371.	1.3	0
158	On Efficient Content Based Information Retrieval Using SVM and Higher Order Correlation Analysis. Lecture Notes in Computer Science, 2009, , 112-119.	1.3	0
159	Towards a Reliable Evaluation Framework for Message Authentication in Web-Based Transactions Based on an Improved Computational Intelligence and Dynamical Systems Methodology. Lecture Notes in Computer Science, 2009, , 595-602.	1.3	0
160	On a New Similarity Analysis in Frequency Domain for Mining Faces within a Complex Background. Lecture Notes in Computer Science, 2009, , 301-309.	1.3	0
161	Improved Non Linear Time Series Forecasting Using Non Linear Analysis Techniques and RBF Neural Networks for MRS Signals and Chaotic Diode Resonator Circuits. Communications in Computer and Information Science, 2010, , 245-256.	0.5	0
162	New Strategies Based on Multithreading Methodology in Implementing Ant Colony Optimization Schemes for Improving Resource Management in Large Scale Wireless Communication Systems. Studies in Computational Intelligence, 2010, , 537-578.	0.9	0

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163	New Genetic Optimization Strategies In Efficient Off-Line Traffic Engineering For Simulating Multi-Service UMTS Cellular Networks. , 2015, , .		0
164	On Multi-Agent Strategies For Efficiently Designing Competent Integrated Hardware-Generic Simulation Systems of Wireless Sensor Networks. , 2015, , .		0
165	On Integrating Natural Computing Based Optimization with Channel Assignment Mining and Decision Making Towards Efficient Spectrum Reuse in Cellular Networks Modelled Through Multi-agent System Schemes. Lecture Notes in Electrical Engineering, 2016, , 783-798.	0.4	0
166	A Conceptual Multi-agent Modeling of Dynamic Scheduling in Wireless Sensor Networks. Lecture Notes in Electrical Engineering, 2016, , 385-398.	0.4	0
167	An in Depth Comparative Analysis of Software Tools for Modelling and Simulating Business Processes. , 2016, , .		0
168	A Study on Clustering Initial Weights Space of MLP Neural Networks in Terms of Fast Convergence and Generalization Capability. , 2019, , 1-2.		0
169	An efficient Multi-Agent Modelling Scheme of Wireless Sensor Networks (WSN) Towards Improved Performance Evaluation. International Review on Modelling and Simulations, 2020, 13, 383.	0.3	0
170	Efficient MRI Reconstruction Using a Hybrid Framework for Integrating Stepwise Bayesian Restoration and Neural Network Models in a Memory Based Priors System. Lecture Notes in Computer Science, 2008, , 237-246.	1.3	0