Xiaowen Chu

List of Publications by Year in descending order

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249298 150775 5,569 189 26 59 h-index citations g-index papers 192 192 192 5364 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Editorial: Advances in Mobile, Edge and Cloud Computing. Mobile Networks and Applications, 2022, 27, 219-221.	2.2	3
2	VFChain: Enabling Verifiable and Auditable Federated Learning via Blockchain Systems. IEEE Transactions on Network Science and Engineering, 2022, 9, 173-186.	4.1	79
3	Energy-Efficient Online Scheduling of Transformer Inference Services on GPU Servers. IEEE Transactions on Green Communications and Networking, 2022, 6, 1649-1659.	3.5	O
4	Energy-Aware Non-Preemptive Task Scheduling With Deadline Constraint in DVFS-Enabled Heterogeneous Clusters. IEEE Transactions on Parallel and Distributed Systems, 2022, 33, 4083-4099.	4.0	6
5	AutoML: A survey of the state-of-the-art. Knowledge-Based Systems, 2021, 212, 106622.	4.0	646
6	Simplifying low-level GPU programming with GAS. , 2021, , .		O
7	Exploiting Simultaneous Communications to Accelerate Data Parallel Distributed Deep Learning. , 2021, , .		16
8	A Quantitative Survey of Communication Optimizations in Distributed Deep Learning. IEEE Network, 2021, 35, 230-237.	4.9	22
9	Traffic Management for Distributed Machine Learning in RDMA-enabled Data Center Networks. , 2021, , .		О
10	IRS: A Large Naturalistic Indoor Robotics Stereo Dataset to Train Deep Models for Disparity and Surface Normal Estimation. , 2021, , .		6
11	MG-WFBP: Merging Gradients Wisely for Efficient Communication in Distributed Deep Learning. IEEE Transactions on Parallel and Distributed Systems, 2021, 32, 1903-1917.	4.0	18
12	Deep learning identifies leak in water pipeline system using transient frequency response. Chemical Engineering Research and Design, 2021, 155, 355-365.	2.7	28
13	"Barcode―cell sensor microfluidic system: Rapid and sample-to-answer antimicrobial susceptibility testing applicable in resource-limited conditions. Biosensors and Bioelectronics, 2021, 192, 113516.	5.3	4
14	EDNet: Efficient Disparity Estimation with Cost Volume Combination and Attention-based Spatial Residual., 2021,,.		8
15	A probabilistic approach towards an unbiased semi-supervised cluster tree. Knowledge-Based Systems, 2020, 192, 105306.	4.0	2
16	Joint Access Point Placement and Power-Channel-Resource-Unit Assignment for 802.11ax-Based Dense WiFi with QoS Requirements. , 2020, , .		8
17	Demystifying Tensor Cores to Optimize Half-Precision Matrix Multiply. , 2020, , .		32
18	Benchmarking the Performance and Energy Efficiency of Al Accelerators for Al Training. , 2020, , .		23

#	Article	IF	Citations
19	Communication-Efficient Distributed Deep Learning with Merged Gradient Sparsification on GPUs. , 2020, , .		38
20	Measurement and Analysis of the Bitcoin Networks: A View from Mining Pools. , 2020, , .		23
21	FADNet: A Fast and Accurate Network for Disparity Estimation. , 2020, , .		47
22	ESetStore: An Erasure-Coded Storage System With Fast Data Recovery. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 2001-2016.	4.0	12
23	An Erasure-Coded Storage System for Edge Computing. IEEE Access, 2020, 8, 96271-96283.	2.6	12
24	GPGPU Performance Estimation With Core and Memory Frequency Scaling. IEEE Transactions on Parallel and Distributed Systems, 2020, 31, 2865-2881.	4.0	24
25	FMore: An Incentive Scheme of Multi-dimensional Auction for Federated Learning in MEC. , 2020, , .		90
26	Performance Characterization and Bottleneck Analysis of Hyperledger Fabric. , 2020, , .		28
27	Optimizing batched winograd convolution on GPUs. , 2020, , .		31
28	GPGPU performance estimation for frequency scaling using cross-benchmarking., 2020,,.		1
29	Energy-efficient Inference Service of Transformer-based Deep Learning Models on GPUs. , 2020, , .		3
30	Communication-Efficient Decentralized Learning with Sparsification and Adaptive Peer Selection. , 2020, , .		21
31	Reducing Forks in the Blockchain via Probabilistic Verification. , 2019, , .		14
32	The Impact of GPU DVFS on the Energy and Performance of Deep Learning. , 2019, , .		34
33	Deep learning identifies accurate burst locations in water distribution networks. Water Research, 2019, 166, 115058.	5.3	133
34	MG-WFBP: Efficient Data Communication for Distributed Synchronous SGD Algorithms. , 2019, , .		58
35	Computer-Aided Clinical Skin Disease Diagnosis Using CNN and Object Detection Models. , 2019, , .		5
36	A Distributed Synchronous SGD Algorithm with Global Top-k Sparsification for Low Bandwidth Networks. , 2019, , .		66

#	Article	IF	CITATIONS
37	Minimal Discrepancy Placement of Sniffers and Calibrators for Wireless Indoor Localization. , 2019, , .		1
38	A Convergence Analysis of Distributed SGD with Communication-Efficient Gradient Sparsification. , 2019, , .		35
39	G-CRS: GPU Accelerated Cauchy Reed-Solomon Coding. IEEE Transactions on Parallel and Distributed Systems, 2018, 29, 1484-1498.	4.0	12
40	GPGPU Performance Estimation with Core and Memory Frequency Scaling. , 2018, , .		12
41	A DAG Model of Synchronous Stochastic Gradient Descent in Distributed Deep Learning. , 2018, , .		12
42	Anchor Selection for Localization in Large Indoor Venues. , 2018, , .		3
43	Performance Modeling and Evaluation of Distributed Deep Learning Frameworks on GPUs. , 2018, , .		50
44	ZOS: A Fast Rendezvous Algorithm Based on Set of Available Channels for Cognitive Radios. , 2018, , .		2
45	Self-Adaptive Collective Motion of Swarm Robots. IEEE Transactions on Automation Science and Engineering, 2018, 15, 1533-1545.	3.4	47
46	Cooperative rendezvous protocol for multiple user-pairs in cognitive radio networks. , 2018, , .		1
47	Dissecting GPU Memory Hierarchy Through Microbenchmarking. IEEE Transactions on Parallel and Distributed Systems, 2017, 28, 72-86.	4.0	121
48	A survey and measurement study of GPU DVFS on energy conservation. Digital Communications and Networks, 2017, 3, 89-100.	2.7	47
49	Reinsurance-Emulated Collaboration Mechanism in Cloud Federation. , 2017, , .		3
50	Energy Efficient Job Scheduling with DVFS for CPU-GPU Heterogeneous Systems. , 2017, , .		24
51	EPPMiner., 2017,,.		8
52	CBS: Community-Based Bus System as Routing Backbone for Vehicular Ad Hoc Networks. IEEE Transactions on Mobile Computing, 2017, 16, 2132-2146.	3.9	37
53	Energy efficient real-time task scheduling on CPU-GPU hybrid clusters. , 2017, , .		42
54	Performance Evaluation of Deep Learning Tools in Docker Containers. , 2017, , .		34

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55	Supervised Learning Based Algorithm Selection for Deep Neural Networks. , 2017, , .		O
56	GPGPU Power Estimation with Core and Memory Frequency Scaling. Performance Evaluation Review, 2017, 45, 73-78.	0.4	11
57	Joint VM-Switch Consolidation for Energy Efficiency in Data Centers. , 2016, , .		5
58	Minimum-Cost Recruitment of Mobile Crowdsensing in Cellular Networks. , 2016, , .		14
59	Power-Aware Wireless Transmission for Computation Offloading in Mobile Cloud. , 2016, , .		1
60	ESet: Placing Data Towards Efficient Recovery for Large-Scale Erasure-Coded Storage Systems., 2016,,.		3
61	Benchmarking State-of-the-Art Deep Learning Software Tools. , 2016, , .		177
62	Autonomous-Vehicle Public Transportation System: Scheduling and Admission Control. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 1210-1226.	4.7	108
63	Toward a Standard Interface for Cloud Providers: The Container as the Narrow Waist. IEEE Internet Computing, 2016, 20, 66-71.	3.2	16
64	Frontier technologies of trust computing and network security. Concurrency Computation Practice and Experience, 2015, 27, 2907-2909.	1.4	1
65	R-memcached: A reliable in-memory cache for big key-value stores. Tsinghua Science and Technology, 2015, 20, 560-573.	4.1	4
66	Community-Based Bus System as Routing Backbone for Vehicular Ad Hoc Networks. , 2015, , .		6
67	Adjustable Rendezvous in Multi-Radio Cognitive Radio Networks. , 2015, , .		12
68	Multiple Radios for Fast Rendezvous in Cognitive Radio Networks. IEEE Transactions on Mobile Computing, 2015, 14, 1917-1931.	3.9	43
69	PErasure: A parallel Cauchy Reed-Solomon coding library for GPUs. , 2015, , .		15
70	QoS Prediction for the Cloud Service Marketplace: A Grassmann Manifold Approach. , 2015, , .		0
71	Online procurement auctions for resource pooling in client-assisted cloud storage systems. , 2015, , .		46
72	R-Memcached: A Reliable In-Memory Cache System for Big Key-Value Stores. Lecture Notes in Computer Science, 2015, , 243-256.	1.0	2

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73	Channel-hopping based on available channel set for rendezvous of cognitive radios. , 2014, , .		16
74	Core-Selecting Auctions for Dynamically Allocating Heterogeneous VMs in Cloud Computing. , 2014, , .		23
75	Autonomous vehicle public transportation system. , 2014, , .		12
76	Accelerating the scoring module of mass spectrometry-based peptide identification using GPUs. BMC Bioinformatics, 2014, 15, 121.	1.2	10
77	Improving sustainability of BitTorrent darknets. Peer-to-Peer Networking and Applications, 2014, 7, 539-554.	2.6	0
78	A parallel lattice Boltzmann method for large eddy simulation on multiple GPUs. Computing (Vienna/New York), 2014, 96, 479-501.	3.2	6
79	G-BLASTN: accelerating nucleotide alignment by graphics processors. Bioinformatics, 2014, 30, 1384-1391.	1.8	60
80	User behaviors in private BitTorrent communities. Computer Networks, 2014, 60, 34-45.	3.2	3
81	Dissecting Darknets. ACM Transactions on Internet Technology, 2014, 13, 1-25.	3.0	4
82	Electric Vehicle Charging Station Placement: Formulation, Complexity, and Solutions. IEEE Transactions on Smart Grid, 2014, 5, 2846-2856.	6.2	337
83	Adjustable Rendezvous in Multi-Radio Cognitive Radio Networks. , 2014, , .		4
84	Minimum latency server selection for heterogeneous cloud services. , 2014, , .		10
85	Benchmarking the Memory Hierarchy of Modern GPUs. Lecture Notes in Computer Science, 2014, , 144-156.	1.0	31
86	Efficient broadcasting in multi-hop wireless networks with a realistic physical layer. Ad Hoc Networks, 2013, 11, 1305-1318.	3.4	11
87	Enhanced Jump-Stay Rendezvous Algorithm for Cognitive Radio Networks. IEEE Communications Letters, 2013, 17, 1742-1745.	2.5	104
88	Speeding up k-Means algorithm by GPUs. Journal of Computer and System Sciences, 2013, 79, 216-229.	0.9	56
89	Electric vehicle charging station placement. , 2013, , .		51
90	Minimum-Cost Sensor Placement for Required Lifetime in Wireless Sensor-Target Surveillance Networks. IEEE Transactions on Parallel and Distributed Systems, 2013, 24, 1783-1796.	4.0	29

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91	A measurement study of GPU DVFS on energy conservation., 2013,,.		56
92	Multiple radios for effective rendezvous in cognitive radio networks., 2013,,.		21
93	How to Survive and Thrive in a Private BitTorrent Community. Lecture Notes in Computer Science, 2013, , 270-284.	1.0	5
94	Unveiling popularity of BitTorrent Darknets. IET Communications, 2012, 6, 1640.	1.5	7
95	Taxonomy and challenges of rendezvous algorithms in cognitive radio networks. , 2012, , .		41
96	Implementation and Analysis of AES Encryption on GPU., 2012,,.		67
97	On Achieving Group-Strategyproof Multicast. IEEE Transactions on Parallel and Distributed Systems, 2012, 23, 913-923.	4.0	3
98	Generalized-Bi-Connectivity for Fault Tolerant Cognitive Radio Networks. , 2012, , .		6
99	Implementation of a Lattice Boltzmann Method for Large Eddy Simulation on Multiple GPUs. , 2012, , .		3
100	Speeding up Scoring Module of Mass Spectrometry Based Protein Identification by GPU., 2012, , .		3
101	Inequity of Sharing Ratio Enhancement in Darknet: Measurement and Improvement. , 2012, , .		2
102	SOAP3: ultra-fast GPU-based parallel alignment tool for short reads. Bioinformatics, 2012, 28, 878-879.	1.8	200
103	Jump-Stay Rendezvous Algorithm for Cognitive Radio Networks. IEEE Transactions on Parallel and Distributed Systems, 2012, 23, 1867-1881.	4.0	150
104	Tsunami: massively parallel homomorphic hashing on manyâ€core GPUs. Concurrency Computation Practice and Experience, 2012, 24, 2028-2039.	1.4	3
105	Maximizing Lifetime of Connected-Dominating-Set in Cognitive Radio Networks. Lecture Notes in Computer Science, 2012, , 316-330.	1.0	5
106	An Authorization Model without Central Authority for Service Collaboration., 2011,,.		0
107	Trust Based Access Control in Infrastructure-Centric Environment. , 2011, , .		7
108	Jump-stay based channel-hopping algorithm with guaranteed rendezvous for cognitive radio networks. , 2011, , .		140

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109	Efficient dynamic task scheduling in virtualized data centers with fuzzy prediction. Journal of Network and Computer Applications, 2011, 34, 1068-1077.	5.8	85
110	Quality of service management in emerging wireless networks. International Journal of Network Management, 2011, 21, 267-268.	1.4	O
111	General Maximal Lifetime Sensor-Target Surveillance Problem and Its Solution. IEEE Transactions on Parallel and Distributed Systems, 2011, 22, 1757-1765.	4.0	11
112	Improving Sustainability of Private P2P Communities. , 2011, , .		14
113	Reputation and trust management in heterogeneous peer-to-peer networks. Telecommunication Systems, 2010, 44, 191-203.	1.6	25
114	Sparse-partial wavelength conversion: Converter placement and wavelength assignment. Optical Switching and Networking, 2010, 7, 66-74.	1.2	9
115	Mechanism design for set cover games with selfish element agents. Theoretical Computer Science, 2010, 411, 174-187.	0.5	11
116	Providing key recovery capability for mobile communications. Security and Communication Networks, 2010, 3, 207-216.	1.0	0
117	Performance Analysis of Data Management in Sensor Data Storage via Stochastic Petri Nets. , 2010, , .		3
118	Reputation-Based QoS Provisioning in Cloud Computing via Dirichlet Multinomial Model., 2010,,.		45
119	Distributed KDC-Based Random Pairwise Key Establishment in Wireless Sensor Networks. Eurasip Journal on Wireless Communications and Networking, 2010, 2010, .	1.5	2
120	Simple movement control algorithm for bi-connectivity in robotic sensor networks. IEEE Journal on Selected Areas in Communications, 2010, 28, 994-1005.	9.7	48
121	A Lightweight Emulator for BitTorrent-Like File Sharing Systems. , 2010, , .		3
122	GPUMP: A Multiple-Precision Integer Library for GPUs. , 2010, , .		9
123	An Efficient Privacy-Preserving Publish-Subscribe Service Scheme for Cloud Computing. , 2010, , .		6
124	Unveiling Popularity of BitTorrent Darknets. , 2010, , .		10
125	Speeding up K-Means Algorithm by GPUs. , 2010, , .		42
126	Ring-Walk Based Channel-Hopping Algorithms with Guaranteed Rendezvous for Cognitive Radio Networks. , 2010, , .		68

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127	Measurements, analysis and modeling of private tracker sites. , 2010, , .		2
128	Random linear network coding for peer-to-peer applications. IEEE Network, 2010, 24, 35-39.	4.9	19
129	An Efficient Recovery and Survival Scheme against Malware Attacks. , 2010, , .		0
130	An Effective Early Warning Scheme against Pollution Dissemination for BitTorrent., 2009,,.		0
131	FAXtrac: Fast Extraction of Disk Layout. , 2009, , .		0
132	Maximizing Lifetime of Sensor-Target Surveillance in Wireless Sensor Networks. , 2009, , .		5
133	Speeding Up Homomorpic Hashing Using GPUs. , 2009, , .		2
134	Homonymous role in roleâ€based discretionary access control. Wireless Communications and Mobile Computing, 2009, 9, 1287-1300.	0.8	1
135	An Efficient Scheme for Secure Communication in Large-Scale Wireless Sensor Networks. , 2009, , .		2
136	Reliable and Energy-Efficient Routing for Static Wireless Ad Hoc Networks with Unreliable Links. IEEE Transactions on Parallel and Distributed Systems, 2009, 20, 1408-1421.	4.0	57
137	Joint Throughput Optimization for Wireless Mesh Networks. IEEE Transactions on Mobile Computing, 2009, 8, 895-909.	3.9	45
138	Auction-Based On-Demand P2P Min-Cost Media Streaming with Network Coding. IEEE Transactions on Parallel and Distributed Systems, 2009, 20, 1816-1829.	4.0	19
139	Incentive framework using Shapley value for BitTorrent-like systems. , 2009, , .		2
140	Practical Random Linear Network Coding on GPUs. Lecture Notes in Computer Science, 2009, , 573-585.	1.0	16
141	Accelerating Network Coding on Many-core GPUs and Multi-core CPUs. Journal of Communications, 2009, 4, .	1.3	14
142	Risk-Aware QoP/QoS Optimization for Multimedia Applications in Wireless Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2009, , 34-51.	0.2	0
143	Address Allocation Mechanisms for Mobile Ad Hoc Networks. Computer Communications and Networks, 2009, , 333-354.	0.8	1
144	Provisioning of Parameterized Quality of Service in 802.11e Based Wireless Mesh Networks. Mobile Networks and Applications, 2008, 13, 6-18.	2.2	5

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145	Lightpath rerouting in wavelength-routed WDM networks. Journal of Optical Networking, 2008, 7, 721.	2.5	11
146	An Analytical Model for IEEE 802.11 Point-To-Point Link. , 2008, , .		0
147	Design of a Cluster-Based Web Server with Proportional Connection Delay Guarantee. , 2008, , .		1
148	Massively Parallel Network Coding on GPUs. , 2008, , .		28
149	Quadratic Residue Based Address Allocation for Mobile Ad Hoc Networks. , 2008, , .		10
150	SepRep: A Novel Reputation Evaluation Model in Peer-to-Peer Networks. Lecture Notes in Computer Science, 2008, , 86-99.	1.0	3
151	Spectrum Bidding in Wireless Networks and Related. Lecture Notes in Computer Science, 2008, , 558-567.	1.0	17
152	Nash Equilibria and Dominant Strategies in Routing. , 2008, , 571-573.		0
153	A Study of Lightpath Rerouting Schemes in Wavelength-Routed WDM Networks. , 2007, , .		27
154	Regulation of Drosophila Life Span by Olfaction and Food-Derived Odors. Science, 2007, 315, 1133-1137.	6.0	375
155	Performance Evaluation of IEEE 802.11 Infrastructure Mode with Intra-Cell UDP Traffic. , 2007, , .		4
156	Utility-Aware Resource Allocation for Multi-Stream Overlay Multicast. , 2007, , .		0
157	MLCC: A Multi Layered Correlative Control Mechanism for the VPN Topology. , 2007, , .		1
158	A DoS and fault-tolerant authentication protocol for group communications in ad hoc networks. Computer Communications, 2007, 30, 2428-2441.	3.1	6
159	On the Homonymous Role in Role-Based Discretionary Access Control. Lecture Notes in Computer Science, 2007, , 313-322.	1.0	2
160	Design of a Fuzzy PI Controller to Guarantee Proportional Delay Differentiation on Web Servers. , 2007, , 389-398.		4
161	Fine-Grained Scalable Video Caching for Heterogeneous Clients. IEEE Transactions on Multimedia, 2006, 8, 1011-1020.	5.2	9
	Fuzzy control for guaranteeing absolute delays in web servers. International Journal of High		

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163	Trade-offs between longevity and pathogen resistance in Drosophila melanogaster are mediated by NF?B signaling. Aging Cell, 2006, 5, 533-543.	3.0	141
164	A novel key-embedded scheme for secure video multicast systems. Computers and Electrical Engineering, 2006, 32, 376-393.	3.0	3
165	Energy Efficient Routing With Unreliable Links in Wireless Networks. , 2006, , .		17
166	Self-certified Mutual Authentication and Key Exchange Protocol for Roaming Services. Lecture Notes in Computer Science, 2006, , 408-417.	1.0	0
167	Mechanism Design for Set Cover Games When Elements Are Agents. Lecture Notes in Computer Science, 2005, , 360-369.	1.0	5
168	Wavelength assignment in WDM networks with sparse-partial wavelength conversion., 2005,,.		0
169	Analytical model of sparse-partial wavelength conversion in wavelength-routed WDM networks. IEEE Communications Letters, 2005, 9, 69-71.	2.5	11
170	Dynamic routing and wavelength assignment in the presence of wavelength conversion for all-optical networks. IEEE/ACM Transactions on Networking, 2005, 13, 704-715.	2.6	92
171	A novel secure wireless video surveillance system based on Intel IXP425 network processor., 2005,,.		1
172	Nash Equilibria and Dominant Strategies in Routing. Lecture Notes in Computer Science, 2005, , 979-988.	1.0	4
173	A Novel Key Management and Distribution Solution for Secure Video Multicast. Lecture Notes in Computer Science, 2005, , 246-257.	1.0	1
174	Considering Network Context for Efficient Simulation of Highly Parallel Network Processors. Lecture Notes in Computer Science, 2005, , 1171-1180.	1.0	0
175	A Key Embedded Video Codec for Secure Video Multicast. Lecture Notes in Computer Science, 2005, , 77-87.	1.0	2
176	Class-Based Latency Assurances for Web Servers. Lecture Notes in Computer Science, 2005, , 388-394.	1.0	3
177	An Overview of Virtual Private Network (VPN): IP VPN and Optical VPN. Photonic Network Communications, 2004, 7, 213-225.	1.4	27
178	Wavelength converter placement under different RWA algorithms in wavelength-routed all-optical networks. IEEE Transactions on Communications, 2003, 51, 607-617.	4.9	89
179	Resource management in an integrated optical network. IEEE Journal on Selected Areas in Communications, 2003, 21, 1052-1062.	9.7	2
180	Routing and wavelength asssignment vs. wavelength converter placement in all-optical networks. , 2003, 41, S22-S28.		28

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181	Sparse-partial wavelength conversion in wavelength-routed all-optical networks. , 2003, , .		6
182	<title>Routing and wavelength assignment versus wavelength converters placement in all-optical networks</title> ., 2002, , .		3
183	<title>Wavelength converter placement for different RWA algorithms in wavelength-routed all-optical networks</title> ., 2002,,.		3
184	Proxy cache management for fine-grained scalable video streaming. , 0, , .		11
185	Wavelength converter placement under a dynamic RWA algorithm in wavelength-routed all-optical networks. , 0, , .		5
186	Routing and wavelength assignment issues in the presence of wavelength conversion for all-optical networks. , 0 , , .		3
187	Analysis of sparse-partial wavelength conversion in wavelength-routed WDM networks. , 0, , .		26
188	DLCR: a new adaptive routing scheme in WDM mesh networks. , 0, , .		16
189	On peer-to-peer client web cache sharing. , 0, , .		2