

Franco Davoli

List of Publications by Year in descending order

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176
papers

2,223
citations

516710

16
h-index

315739

38
g-index

187
all docs

187
docs citations

187
times ranked

1650
citing authors

#	ARTICLE	IF	CITATIONS
1	Corrections to: "Green Networking With Packet Processing Engines: Modeling and Optimization". IEEE/ACM Transactions on Networking, 2024, , 1-1.	3.8	5
2	Multi-Site Resource Allocation in a QoS-Aware 5G Infrastructure. IEEE Transactions on Network and Service Management, 2022, 19, 2034-2047.	4.9	4
3	Resource Allocation in Satellite Networks"From Physical to Virtualized Network Functions. Lecture Notes in Networks and Systems, 2022, , 559-580.	0.7	1
4	PAD: A graphical and numerical enhancement of structural coding to facilitate thematic analysis of a literature corpus. MethodsX, 2022, 9, 101633.	1.6	1
5	ANNs Going Beyond Time Series Forecasting: An Urban Network Perspective. IEEE Communications Magazine, 2021, 59, 88-94.	6.1	3
6	From Cloud-Native to 5G-Ready Vertical Applications: An Industry 4.0 Use Case. , 2021, , .		4
7	Managing 5G network slicing and edge computing with the MATILDA telecom layer platform. Computer Networks, 2021, 194, 108090.	5.1	12
8	Evaluating Urban Network Activity Hotspots through Granular Cluster Analysis of Spatio-Temporal Data. , 2021, , .		1
9	Smart Gateway Diversity Strategies for Q/V Feeder Links in SDN-Satellite Networks. , 2020, , .		0
10	Enabling Edge Computing Deployment in 4G and Beyond. , 2020, , .		3
11	Debunking the "Green"NFV Myth: An Assessment of the Virtualization Sustainability in Radio Access Networks. , 2020, , .		4
12	Validation of IaaS-based Technologies for 5G-Ready Applications Deployment. , 2020, , .		5
13	A Model-Based Approach Towards Real-Time Analytics in NFV Infrastructures. IEEE Transactions on Green Communications and Networking, 2020, 4, 529-541.	5.5	8
14	Mobile Edge Vertical Computing over 5G Network Sliced Infrastructures: An Insight into Integration Approaches. IEEE Communications Magazine, 2019, 57, 78-84.	6.1	11
15	A Multi-Clustering Approach to Scale Distributed Tenant Networks for Mobile Edge Computing. IEEE Journal on Selected Areas in Communications, 2019, 37, 499-514.	14.0	25
16	Improving Prediction Accuracy for Power Consumption in Virtual Environments. , 2019, , .		2
17	Networking Challenges for Non-Terrestrial Networks Exploitation in 5G. , 2019, , .		22
18	Exploiting Satellite Broadcast Despite HTTPS. , 2019, , .		1

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19	Small satellites and CubeSats: Survey of structures, architectures, and protocols. International Journal of Satellite Communications and Networking, 2019, 37, 343-359.	1.8	51
20	Modeling Performance and Energy Efficiency of Virtualized Flexible Networks. Advances in Intelligent Systems and Computing, 2019, , 257-273.	0.6	0
21	Flow Assignment in Multi-Core Network Processors. AIRO Springer Series, 2019, , 493-503.	0.6	2
22	On-off Dual Channel Coding as a Team Decision Problem. , 2019, , .		0
23	Decentralized Scalable Dynamic Load Balancing Among Virtual Network Slice Instantiations. , 2018, , .		4
24	Personal Services Placement and Low-Latency Migration in Edge Computing Environments. , 2018, , .		7
25	An Implementational Model of Telecommunications Networks for the Energy Analyst. , 2018, , .		1
26	Evaluating the Impact of Micro-Data Center (MDC) Placement in an Urban Environment. , 2018, , .		3
27	Towards Prediction of Power Consumption of Virtual Machines for Varying Loads. , 2018, , .		5
28	Satellite Networking Integration in the 5G Ecosystem: Research Trends and Open Challenges. IEEE Network, 2018, 32, 9-15.	6.9	95
29	Move with Me: Scalably Keeping Virtual Objects Close to Users on the Move. , 2018, , .		5
30	A MEC Approach to Improve QoE of Video Delivery Service in Urban Spaces. , 2018, , .		9
31	Energy-Efficient Management and Control in Video Distribution Networks: "Legacy"™ Hardware-Based Solutions and Perspectives of Virtualized Networking Environments. Computer Communications and Networks, 2018, , 25-57.	0.8	1
32	An SDN/NFV Platform for Personal Cloud Services. IEEE Transactions on Network and Service Management, 2017, 14, 1143-1156.	4.9	22
33	A scalable SDN slicing scheme for multi-domain fog/cloud services. , 2017, , .		9
34	The dark side of network functions virtualization: A perspective on the technological sustainability. , 2017, , .		11
35	Model-based analytics for profiling workloads in virtual network functions. , 2017, , .		3
36	Virtualization of set-top-box devices in next generation SDN-NFV networks. , 2017, , .		1

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37	Design, Development and Orchestration of 5G-Ready Applications over Sliced Programmable Infrastructure. , 2017, , .		6
38	A Game for Energy-Aware Allocation of Virtualized Network Functions. Journal of Electrical and Computer Engineering, 2016, 2016, 1-10.	0.9	11
39	Large-scale validation and benchmarking of a network of power-conservative systems using ETSI's Green Abstraction Layer. Transactions on Emerging Telecommunications Technologies, 2016, 27, 451-468.	3.9	7
40	Joint Power Scaling of Processing Resources and Consolidation of Virtual Network Functions. , 2016, , .		5
41	Feeder-link outage prediction algorithms for SDN-based high-throughput satellite systems. , 2016, , .		13
42	Load dynamics of a multiplayer online battle arena and simulative assessment of edge server placements. , 2016, , .		6
43	On elastic traffic via contention resolution diversity slotted aloha satellite access. International Journal of Communication Systems, 2016, 29, 522-534.	2.5	9
44	The expected impact of smart devices visualization. , 2016, , .		0
45	Satellite Networking in the Context of Green, Flexible and Programmable Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2016, , 1-11.	0.3	2
46	Surveying Multidisciplinary Aspects in Real-Time Distributed Coding for Wireless Sensor Networks. Sensors, 2015, 15, 2737-2762.	3.8	8
47	Fine-Grained Energy-Efficient Consolidation in SDN Networks and Devices. IEEE Transactions on Network and Service Management, 2015, 12, 132-145.	4.9	32
48	Neural Approximations of Analog Joint Source-Channel Coding. IEEE Signal Processing Letters, 2015, 22, 421-425.	3.6	5
49	Trading off power consumption and delay in packet forwarding engines with adjustable service rate. , 2014, , .		1
50	Green extension of OpenFlow. , 2014, , .		7
51	A northbound interface for power management in next generation network devices. , 2014, 52, 149-157.		13
52	Equivalent bandwidth adaptation with energy preservation under delay constraints. , 2014, , .		1
53	Linear and non-linear monte-carlo approximations of analog joint source-channel coding under generic probability distributions. , 2014, , .		0
54	A Closed-Form Model for the IEEE 802.3az Network and Power Performance. IEEE Journal on Selected Areas in Communications, 2014, 32, 16-27.	14.0	21

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55	Green Networking With Packet Processing Engines: Modeling and Optimization. IEEE/ACM Transactions on Networking, 2014, 22, 110-123.	3.8	43
56	Adaptive Frequency Control of Packet Processing Engines in Telecommunication Networks. IEEE Communications Letters, 2014, 18, 1135-1138.	4.1	5
57	The Green Abstraction Layer: A Standard Power-Management Interface for Next-Generation Network Devices. IEEE Internet Computing, 2013, 17, 82-86.	3.3	46
58	Evaluation of energy consumption and data access time in data fetching in grid-based data-intensive applications. , 2013, , .		2
59	Exposing energy-aware capabilities in next generation network devices. , 2013, , .		0
60	A survey of architectures and scenarios in satellite-based wireless sensor networks: system design aspects. International Journal of Satellite Communications and Networking, 2013, 31, 1-38.	1.8	80
61	Performance evaluation of measurement data acquisition mechanisms in a distributed computing environment integrating remote laboratory instrumentation. Future Generation Computer Systems, 2013, 29, 460-471.	7.5	4
62	Optimizing the power-delay product in energy-aware packet forwarding engines. , 2013, , .		1
63	Setting the Course for a Green Internet. Science, 2013, 342, 1316-1316.	12.6	5
64	Message from the co-chairs. , 2013, , .		0
65	Designing optimal energy profiles for network hardware. , 2012, , .		3
66	A steady-state model for energy-efficient packet processing engines under mixed traffic. , 2012, , .		2
67	Exporting data-plane energy-aware capabilities from network devices toward the control plane: The Green Abstraction Layer. , 2012, , .		11
68	Cutting the energy bills of Internet Service Providers and telecoms through power management: An impact analysis. Computer Networks, 2012, 56, 2320-2342.	5.1	125
69	e-Infrastructure for Remote Instrumentation. Computer Standards and Interfaces, 2012, 34, 476-484.	5.4	13
70	Non-linear coding and decoding strategies exploiting spatial correlation in wireless sensor networks. IET Communications, 2012, 6, 2198.	2.2	11
71	Performance Evaluation of the DORII Instrument Element Data Transfer Capabilities. , 2012, , 15-24.		0
72	Network Performance Monitoring for Remote Instrumentation Services: The DORII Platform Test Case. , 2012, , 285-303.		0

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73	Remote Laboratory Experiments in Virtual Immersive Learning Environments. , 2012, , 2819-2823.		0
74	Green network technologies and the art of trading-off. , 2011, , .		25
75	Energy Efficiency in the Future Internet: A Survey of Existing Approaches and Trends in Energy-Aware Fixed Network Infrastructures. IEEE Communications Surveys and Tutorials, 2011, 13, 223-244.	39.4	542
76	The potential impact of green technologies in next-generation wireline networks: Is there room for energy saving optimization?. , 2011, 49, 80-86.		143
77	The DORII Project e-Infrastructure: Deployment, Applications, and Measurements. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2011, , 285-295.	0.3	0
78	Linear quadratic control of service rate allocation in a satellite network. IET Communications, 2010, 4, 1580.	2.2	1
79	An analytical model for designing and controlling new-generation green devices. , 2010, , .		5
80	Linear and non-linear strategies for power mapping in Gaussian sensor networks. , 2010, , .		0
81	Medium access control scheme for supporting user mobility in digital video broadcasting-return channel via satellite/satellite second generation " general architecture and functionalities. IET Communications, 2010, 4, 1532.	2.2	2
82	A measurement-based adaptive control mechanism for pricing in telecommunication networks. Journal of Communications and Networks, 2010, 12, 253-265.	2.6	2
83	Theoretical and technological limitations of power scaling in network devices. , 2010, , .		10
84	Integration of the Laboratory Instruments with e-Infrastructure. Computational Methods in Science and Technology, 2010, Special Issue, 125-133.	0.3	1
85	Energy and Distortion Minimization in "Refining"and "Expanding"Sensor Networks. , 2010, , 319-327.		0
86	Video Streaming Transfer in a Smart Satellite Mobile Environment. International Journal of Digital Multimedia Broadcasting, 2009, 2009, 1-12.	0.6	3
87	Using P2P overlays to provide QoS in service-oriented wireless networks. IEEE Wireless Communications, 2009, 16, 32-38.	9.0	4
88	Optimal control of communication in energy constrained sensor networks through team theory and Extended Ritz Method. , 2009, , .		1
89	Energy-Aware Resource Adaptation for Next-Generation Network Equipment. , 2009, , .		6
90	Remote instrumentation infrastructure for e-Science. Approach of the DORII project. , 2009, , .		1

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91	Performance Constrained Power Consumption Optimization in Distributed Network Equipment. , 2009, , .		15
92	A Decision Theoretic Approach to Gaussian Sensor Networks. , 2009, , .		4
93	Bandwidth Adaptation for Vertical QoS Mapping in Protocol Stacks for Wireless Links. , 2009, , .		4
94	The DORII project test bed: Distributed eScience applications at work. , 2009, , .		7
95	Energy-aware performance optimization for next-generation green network equipment. , 2009, , .		38
96	Engineering Applications on the eInfrastructure: The Case of Telecommunication Measurement Instrumentation. Computational Methods in Science and Technology, 2009, 15, 41-47.	0.3	2
97	Security in peer-to-peer applications and remote instrumentation over satellite: a scenario including Public Protection and Disaster Relief (PPDR). , 2009, , .		0
98	Probabilistic Fault Management. Chapman & Hall/CRC Studies in Informatics Series, 2009, , 309-347.	0.1	1
99	Traffic volume analysis of a nation-wide eMule community. Computer Communications, 2008, 31, 2485-2495.	5.1	5
100	Optimization of an eMule-like modifier strategy. Computer Communications, 2008, 31, 3876-3882.	5.1	5
101	Hybrid optimization for QoS control in IP Virtual Private Networks. Computer Networks, 2008, 52, 563-580.	5.1	3
102	Remote Laboratory Experiments in a Virtual Immersive Learning Environment. Advances in Multimedia, 2008, 2008, 1-11.	0.4	8
103	Sensor Network-Based Localization for Continuous Tracking Applications: Implementation and Performance Evaluation. Advances in Multimedia, 2008, 2008, 1-11.	0.4	3
104	Interconnection of Laboratory Equipment via Satellite and Space Links: Investigating the Performance of Software Platforms for the Management of Measurement Instrumentation. Signals and Communication Technology, 2008, , 657-666.	0.5	1
105	Handling local user mobility and QoS in a controlled ad-hoc environment. , 2007, , .		1
106	Adaptive Pricing without Explicit Knowledge of Users Traffic Demands and Utility Functions. , 2007, , .		2
107	Analyzing the impact of edonkey traffic on internet access links. , 2007, , .		1
108	Activity in Satellite Resource Management. , 2007, , 43-65.		0

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109	Cross-Layer Approaches for Resource Management. , 2007, , 95-115.		1
110	Call Admission Control. , 2007, , 177-205.		0
111	Dynamic Bandwidth Allocation. , 2007, , 207-238.		0
112	Resource Management and Network Layer. , 2007, , 243-286.		0
113	Construction of Simulation for Probabilistic Inference in Uncertain and Dynamic Networks Based on Bayesian Networks. , 2006, , .		5
114	Long-Lived TCP Connections Via Satellite: Cross-Layer Bandwidth Allocation, Pricing, and Adaptive Control. IEEE/ACM Transactions on Networking, 2006, 14, 1019-1030.	3.8	18
115	Networking with multi-service GEO satellites: cross-layer approaches for bandwidth allocation. International Journal of Satellite Communications and Networking, 2006, 24, 387-403.	1.8	14
116	Capacity planning in IP Virtual Private Networks under mixed traffic. Computer Networks, 2006, 50, 1069-1085.	5.1	4
117	LABNET: Towards Remote Laboratories With Unified Access. IEEE Transactions on Instrumentation and Measurement, 2006, 55, 1551-1558.	4.7	25
118	Adaptive cross-layer bandwidth allocation in a rain-faded satellite environment. International Journal of Communication Systems, 2006, 19, 509-530.	2.5	12
119	An overlay scheme to provide loose QoS for wireless nodes. , 2006, , .		0
120	SAT01-4: A Study of Fairness Issues in the Assignment of Bandwidth to Elephant TCP Connections Sharing a Rain-Faded GEO Satellite Channel. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	0
121	Resource allocation in satellite networks: certainty equivalent approaches versus sensitivity estimation algorithms. International Journal of Communication Systems, 2005, 18, 3-36.	2.5	6
122	Radio resource management across multiple protocol layers in satellite networks: a tutorial overview. International Journal of Satellite Communications and Networking, 2005, 23, 265-305.	1.8	20
123	Neural Approximation of Open-Loop Feedback Rate Control in Satellite Networks. IEEE Transactions on Neural Networks, 2005, 16, 1195-1211.	4.2	15
124	Peer-to-peer middleware for bandwidth allocation in sensor networks. IEEE Communications Letters, 2005, 9, 285-287.	4.1	15
125	Adaptive Bandwidth Partitioning Among TCP Elephant Connections over Multiple Rain-Faded Satellite Channels. Lecture Notes in Computer Science, 2005, , 559-573.	1.3	4
126	Planning Multiservice VPN Networks: An Analytical/Simulative Mechanism to Dimension the Bandwidth Assignments. Lecture Notes in Computer Science, 2005, , 176-190.	1.3	1

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127	An Experimental Study on the Quality-of-Service of Video Encoded Sequences Over an Emulated Rain-Faded Satellite Channel. <i>IEEE Journal on Selected Areas in Communications</i> , 2004, 22, 229-237.	14.0	9
128	A Dynamic Cross Layer Control Strategy for Resource Partitioning in a Rain Faded Satellite Channel with Long-Lived TCP Connections. , 2004, , 83-96.		4
129	Wireless access to the global Internet: mobile radio networks and satellite systems. <i>International Journal of Communication Systems</i> , 2003, 16, 1-4.	2.5	2
130	Quality of service control in multimedia network clusters. <i>International Journal of Communication Systems</i> , 2003, 16, 701-714.	2.5	0
131	A proposal of new price-based Call Admission Control rules for Guaranteed Performance services multiplexed with Best Effort traffic. <i>Computer Communications</i> , 2003, 26, 1470-1483.	5.1	11
132	Integration of pricing models between best-effort and guaranteed performance services in telecommunication networks. <i>Control Engineering Practice</i> , 2003, 11, 1209-1226.	5.5	5
133	Static and dynamic resource allocation in a multiservice satellite network with fading. <i>International Journal of Satellite Communications and Networking</i> , 2003, 21, 469-487.	1.8	50
134	Best-Effort and Guaranteed Performance Services in Telecommunications Networks: Pricing and Call Admission Control Techniques. <i>Lecture Notes in Computer Science</i> , 2003, , 261-275.	1.3	2
135	Bandwidth allocation in a multiservice satellite network based on long-term weather forecast scenarios. <i>Computer Communications</i> , 2002, 25, 1037-1046.	5.1	7
136	QoS-aware routing in ATM and IP-over-ATM. <i>Computer Communications</i> , 2001, 24, 811-821.	5.1	5
137	A multiple access protocol with explicit and implicit reservation. <i>International Journal of Communication Systems</i> , 2001, 14, 251-262.	2.5	0
138	Evaluation and comparison of cell loss and delay models for ATM multiplexers. <i>Telecommunication Systems</i> , 2001, 16, 41-54.	2.5	1
139	Call Admission Control and Routing of QoS-Aware and Best-Effort Flows in an IP-over-ATM Networking Environment. <i>Lecture Notes in Computer Science</i> , 2001, , 33-49.	1.3	2
140	Definition and Experimental Evaluation of an Architecture for Joint Quality of Service Control in Multimedia Networks. <i>Lecture Notes in Computer Science</i> , 2001, , 81-95.	1.3	0
141	A Bandwidth Broker Assignment Scheme in DiffServ Networks. <i>Lecture Notes in Computer Science</i> , 2001, , 251-265.	1.3	0
142	Service Quality Control in Multimedia Wireless Networks. <i>European Transactions on Telecommunications</i> , 2000, 11, 323-325.	1.2	0
143	A Combined Forward Error Control and Multiple Access Protocol for Wireless Voice/Data Integration. <i>International Journal of Wireless Information Networks</i> , 2000, 7, 231-240.	2.7	0
144	Load Estimation and Control in Best-Effort Network Domains. <i>Journal of Network and Systems Management</i> , 2000, 8, 527-541.	4.9	5

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145	A two-level stochastic approximation for admission control and bandwidth allocation. IEEE Journal on Selected Areas in Communications, 2000, 18, 222-233.	14.0	10
146	Resource Allocation Strategies for Multimedia Traffic in an ATM-based PON. , 1999, , 305-319.		2
147	An adaptive neural network admission controller for dynamic bandwidth allocation. IEEE Transactions on Systems, Man, and Cybernetics, 1998, 28, 592-601.	5.0	6
148	On the Existence of Stationary Team-Optimal Strategies for the Maximization of Average Expected Throughput in a Multiple Access Broadcast Channel. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 215-220.	0.4	0
149	A Two-Level Parameter-Adaptive Access Multiplexer. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 227-233.	0.4	0
150	Control of multirate synchronous streams in hybrid TDM access networks. IEEE/ACM Transactions on Networking, 1997, 5, 291-304.	3.8	16
151	Two Simulation Tools for Testing ATM Resource Allocation Strategies. Simulation, 1997, 68, 9-22.	1.8	1
152	Bandwidth allocation and admission control in ATM networks with service separation. , 1997, 35, 130-137.		39
153	Title is missing!. Mobile Networks and Applications, 1997, 2, 45-53.	3.3	11
154	A call admission control strategy for multiservice wireless cellular packet networks. International Journal of Wireless Information Networks, 1996, 3, 235-242.	2.7	2
155	Simple schemes for traffic integration at call set-up level in ATM networks. Computer Communications, 1996, 19, 645-652.	5.1	4
156	Call admission control and bandwidth allocation in a multiservice DQDB network. Computer Communications, 1995, 18, 537-544.	5.1	6
157	Distributed Coordinated Deflection Routing Algorithms for High Speed Networks. Journal of High Speed Networks, 1995, 4, 287-297.	0.8	1
158	Hierarchical dynamic control of multiple traffic classes in ATM networks. European Transactions on Telecommunications, 1994, 5, 747-755.	1.2	12
159	A network management and control scenario for multimedia applications. Annales Des Telecommunications/Annals of Telecommunications, 1994, 49, 65-74.	2.5	4
160	Dynamic hierarchical control of resource allocation in an integrated services broadband network. Computer Networks, 1993, 25, 1079-1087.	1.0	11
161	A parametric optimization approach to admission control and bandwidth assignment in hybrid TDM networks. International Journal of Communication Systems, 1993, 6, 15-27.	0.2	10
162	Adaptive bandwidth allocation by hierarchical control of multiple ATM traffic classes. , 1992, , .		12

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163	Design and analysis of an MAC-layer protocol for a car-to-infrastructure packet radio network. IEEE Transactions on Vehicular Technology, 1992, 41, 152-158.	6.3	4
164	Independent Stations Algorithm for the Maximization of One-Step Throughput in a Multiaccess Channel. IRE Transactions on Communications Systems, 1987, 35, 795-800.	0.6	19
165	Decentralized optimal control of Markov chains with a common past information set. IEEE Transactions on Automatic Control, 1987, 32, 1028-1031.	5.7	50
166	On implicit modelling theory: Basic concepts and application to adaptive control. Automatica, 1987, 23, 189-201.	5.0	14
167	Development of optimal routing policies in a queueing network. Annual Review in Automatic Programming, 1985, 12, 404-407.	0.2	0
168	A decentralized closed-loop solution to the routing problem in networks. Annual Review in Automatic Programming, 1985, 13, 9-17.	0.2	2
169	Partially nested information structures with a common past. IEEE Transactions on Automatic Control, 1984, 29, 846-850.	5.7	16
170	Filtering and prediction techniques in radar tracking of vehicles for assisted driving. , 0, , .		4
171	A general framework for networked multimedia applications enabling access to laboratory equipment: the LABNET project experience. , 0, , .		14
172	P2P in satellite networks: a tutorial on related problems and some possible solutions. , 0, , .		3
173	A Neural Network Solution to QoS-IP Team-Optimal Dynamic Routing. , 0, , .		2
174	A packet sniffing and synchronization technique to boost P2P satellite networks. , 0, , .		3
175	Prediction Strategies for Proactive Management in Dynamic Distributed Systems. , 0, , .		5
176	SDN-Enabled Energy-Efficient Network Management. , 0, , 323-338.		3