

Massimo Villari

List of Publications by Year in descending order

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169
papers

3,541
citations

331538

21
h-index

233338

45
g-index

179
all docs

179
docs citations

179
times ranked

3356
citing authors

#	ARTICLE	IF	CITATIONS
1	Osmotic Computing: A New Paradigm for Edge/Cloud Integration. IEEE Cloud Computing, 2016, 3, 76-83.	5.3	301
2	How to Enhance Cloud Architectures to Enable Cross-Federation. , 2010, , .		230
3	Internet of Things and Edge Cloud Computing Roadmap for Manufacturing. IEEE Cloud Computing, 2016, 3, 66-73.	5.3	201
4	Reservoir - When One Cloud Is Not Enough. Computer, 2011, 44, 44-51.	1.2	179
5	PEA: Parallel electrocardiogram-based authentication for smart healthcare systems. Journal of Network and Computer Applications, 2018, 117, 10-16.	5.8	140
6	Open Issues in Scheduling Microservices in the Cloud. IEEE Cloud Computing, 2016, 3, 81-88.	5.3	121
7	An IoT Cloud System for Traffic Monitoring and Vehicular Accidents Prevention Based on Mobile Sensor Data Processing. IEEE Sensors Journal, 2018, 18, 4795-4802.	2.4	107
8	GUARDIAN: Blockchain-Based Secure Demand Response Management in Smart Grid System. IEEE Transactions on Services Computing, 2020, 13, 613-624.	3.2	84
9	Blockchain-Based Healthcare Workflow for Tele-Medical Laboratory in Federated Hospital IoT Clouds. Sensors, 2020, 20, 2590.	2.1	81
10	Adding long-term availability, obfuscation, and encryption to multi-cloud storage systems. Journal of Network and Computer Applications, 2016, 59, 208-218.	5.8	78
11	The Next Grand Challenges: Integrating the Internet of Things and Data Science. IEEE Cloud Computing, 2018, 5, 12-26.	5.3	74
12	Exploring Container Virtualization in IoT Clouds. , 2016, , .		71
13	Security and Cloud Computing: InterCloud Identity Management Infrastructure. , 2010, , .		70
14	Big Data Storage in the Cloud for Smart Environment Monitoring. Procedia Computer Science, 2015, 52, 500-506.	1.2	69
15	A Monitoring and Audit Logging Architecture for Data Location Compliance in Federated Cloud Infrastructures. , 2011, , .		59
16	AllJoyn Lambda: An architecture for the management of smart environments in IoT. , 2014, , .		55
17	Three-Phase Cross-Cloud Federation Model: The Cloud SSO Authentication. , 2010, , .		53
18	Characterizing Cloud Federation in IoT. , 2016, , .		49

#	ARTICLE	IF	CITATIONS
19	Exploiting the FIWARE cloud platform to develop a remote patient monitoring system. , 2015, , .		47
20	Osmotic Flow: Osmotic Computing + IoT Workflow. IEEE Cloud Computing, 2017, 4, 68-75.	5.3	45
21	IoTsim-Osmosis: A framework for modeling and simulating IoT applications over an edge-cloud continuum. Journal of Systems Architecture, 2021, 116, 101956.	2.5	40
22	An approach for the secure management of hybrid cloudâ€‘edge environments. Future Generation Computer Systems, 2019, 90, 1-19.	4.9	38
23	Towards energy management in Cloud federation: A survey in the perspective of future sustainable and cost-saving strategies. Computer Networks, 2015, 91, 438-452.	3.2	36
24	Business models for developing smart cities. A fuzzy set qualitative comparative analysis of an IoT platform. Technological Forecasting and Social Change, 2019, 142, 183-193.	6.2	36
25	Virtual machine provisioning through satellite communications in federated Cloud environments. Future Generation Computer Systems, 2012, 28, 85-93.	4.9	34
26	Using Google Cloud Vision in assistive technology scenarios. , 2016, , .		31
27	How to Develop IoT Cloud e-Health Systems Based on FIWARE: A Lesson Learnt. Journal of Sensor and Actuator Networks, 2019, 8, 7.	2.3	30
28	The Need of a Hybrid Storage Approach for IoT in PaaS Cloud Federation. , 2014, , .		27
29	An Authentication Model for IoT Clouds. , 2015, , .		27
30	CloudWave: Where adaptive cloud management meets DevOps. , 2014, , .		26
31	SE CLEVER: A secure message oriented Middleware for Cloud federation. , 2013, , .		25
32	Data On-Boarding in Federated Storage Clouds. , 2013, , .		25
33	Software Defined Membrane: Policy-Driven Edge and Internet of Things Security. IEEE Cloud Computing, 2017, 4, 92-99.	5.3	24
34	Why Deep Learning Is Changing the Way to Approach NGS Data Processing: A Review. IEEE Reviews in Biomedical Engineering, 2018, 11, 68-76.	18.1	24
35	A Secure and Dependable Multi-Agent Autonomous Intersection Management (MA-AIM) System Leveraging Blockchain Facilities. , 2018, , .		24
36	AIPAC: Automatic IP address configuration in mobile ad hoc networks. Computer Communications, 2006, 29, 1189-1200.	3.1	23

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37	From the Cloud to Edge and IoT: a Smart Orchestration Architecture for Enabling Osmotic Computing. , 2018, , .		23
38	A study on container virtualization for guarantee quality of service in Cloud-of-Things. Future Generation Computer Systems, 2019, 99, 356-364.	4.9	23
39	An OAIS-Based Hospital Information System on the Cloud: Analysis of a NoSQL Column-Oriented Approach. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 912-918.	3.9	22
40	Osmotic computing as a distributed multi-agent system: The Body Area Network scenario. Internet of Things (Netherlands), 2019, 5, 130-139.	4.9	22
41	BEACON: A Cloud Network Federation Framework. Communications in Computer and Information Science, 2016, , 325-337.	0.4	21
42	Are Next-Generation Sequencing Tools Ready for the Cloud?. Trends in Biotechnology, 2017, 35, 486-489.	4.9	21
43	DRACO PaaS: A Distributed Resilient Adaptable Cloud Oriented Platform. , 2013, , .		20
44	Towards Osmotic Computing: Analyzing Overlay Network Solutions to Optimize the Deployment of Container-Based Microservices in Fog, Edge and IoT Environments. , 2018, , .		20
45	How cloud computing can support on-demand assistive services. , 2013, , .		19
46	A computer system architecture providing a user-friendly man machine interface for accessing assistive technology in cloud computing. Journal of Systems and Software, 2015, 100, 129-138.	3.3	19
47	A Study on Join Operations in MongoDB Preserving Collections Data Models for Future Internet Applications. Future Internet, 2019, 11, 83.	2.4	19
48	Improving Virtual Machine Migration in Federated Cloud Environments. , 2010, , .		18
49	How the Dataweb Can Support Cloud Federation: Service Representation and Secure Data Exchange. , 2012, , .		18
50	A hospital cloud-based archival information system for the efficient management of HL7 big data. , 2016, , .		17
51	Deployment orchestration of microservices with geographical constraints for Edge computing. , 2017, , .		17
52	A Note on the Convergence of IoT, Edge, and Cloud Computing in Smart Cities. IEEE Cloud Computing, 2018, 5, 22-24.	5.3	17
53	Towards Hybrid Multi-Cloud Storage Systems: Understanding How to Perform Data Transfer. Big Data Research, 2019, 16, 1-17.	2.6	17
54	Hand tracking for human-computer interaction with Graylevel VisualGlove. , 2001, , .		16

#	ARTICLE	IF	CITATIONS
55	An approach to reduce carbon dioxide emissions through virtual machine migrations in a sustainable cloud federation. , 2015, , .		16
56	An Approach to Enable Cloud Service Providers to Arrange IaaS, PaaS, and SaaS Using External Virtualization Infrastructures. , 2011, , .		15
57	Integration of CLEVER clouds with third party software systems through a REST web service interface. , 2012, , .		15
58	A Watchdog Service Making Container-Based Micro-services Reliable in IoT Clouds. , 2017, , .		15
59	On the Design of a Blockchain-as-a-Service-Based Health Information Exchange (BaaS-HIE) System for Patient Monitoring. , 2019, , .		15
60	A Remote Attestation Approach for a Secure Virtual Machine Migration in Federated Cloud Environments. , 2011, , .		14
61	An Architecture for Federated Cloud Computing. , 2011, , 391-411.		14
62	An integrated system for advanced water risk management based on cloud computing and IoT. , 2015, , .		14
63	Towards Osmotic Computing: Looking at Basic Principles and Technologies. Advances in Intelligent Systems and Computing, 2018, , 906-915.	0.5	14
64	Leveraging the Internet of Things: Integration of Sensors and Cloud Computing Systems. International Journal of Distributed Sensor Networks, 2016, 12, 9764287.	1.3	13
65	Enabling Secure XMPP Communications in Federated IoT Clouds Through XEP 0027 and SAML/SASL SSO. Sensors, 2017, 17, 301.	2.1	13
66	How CLEVER-based clouds conceive horizontal and vertical federations. , 2011, , .		12
67	Using Virtualization and noVNC to Support Assistive Technology in Cloud Computing. , 2014, , .		12
68	Realizing Edge Marketplaces: Challenges and Opportunities. IEEE Cloud Computing, 2018, 5, 9-20.	5.3	12
69	MeSmart-Pro: Advanced Processing at the Edge for Smart Urban Monitoring and Reconfigurable Services. Journal of Sensor and Actuator Networks, 2020, 9, 55.	2.3	12
70	A sustainable energy-aware resource management strategy for IoT Cloud federation. , 2015, , .		11
71	Using Virtualization and Guacamole/VNC to Provide Adaptive User Interfaces to Disabled People in Cloud Computing. , 2013, , .		10
72	Data Reliability in Multi-provider Cloud Storage Service with RRNS. Communications in Computer and Information Science, 2013, , 83-93.	0.4	10

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73	Providing Assistive Technology Applications as a Service Through Cloud Computing. Assistive Technology, 2015, 27, 44-51.	1.2	10
74	Identity management in IoT Clouds: A FIWARE case of study. , 2015, , .		9
75	Using embedded systems to spread assistive technology on multiple devices in smart environments. , 2014, , .		8
76	An approach to reduce energy costs through virtual machine migrations in cloud federation. , 2015, , .		8
77	Evaluating a cloud federation ecosystem to reduce carbon footprint by moving computational resources. , 2015, , .		8
78	New trends in Biotechnology: The point on NGS Cloud computing solutions. , 2016, , .		8
79	End-To-End Security Architecture for Federated Cloud and IoT Networks. , 2017, , .		8
80	Security in Lightweight Network Function Virtualisation for Federated Cloud and IoT. , 2017, , .		8
81	An Innovative Osmotic Computing Framework for Self Adapting City Traffic in Autonomous Vehicle Environment. , 2018, , .		8
82	An Integrated System for Advanced Multi-risk Management Based on Cloud for IoT. Advances in Intelligent Systems and Computing, 2014, , 253-269.	0.5	8
83	Towards the Integration between IoT and Cloud Computing: An Approach for the Secure Self-Configuration of Embedded Devices. International Journal of Distributed Sensor Networks, 2015, 11, 286860.	1.3	8
84	How to Enhance Cloud Architectures to Enable Cross-Federation: Towards Interoperable Storage Providers. , 2015, , .		7
85	Federated Networking Services in Multiple OpenStack Clouds. Communications in Computer and Information Science, 2016, , 338-352.	0.4	7
86	A Distributed Edge Computing Architecture to Support Sensing and Detecting Leaks in Waterworks Based on Advanced FDM. IEEE Sensors Journal, 2017, 17, 7820-7827.	2.4	7
87	Resource management of <scp>IoT</scp> edge devices: Challenges, techniques, and solutions. Software - Practice and Experience, 2021, 51, 2357-2359.	2.5	7
88	How to Federate VISION Clouds through SAML/Shibboleth Authentication. Lecture Notes in Computer Science, 2012, , 259-274.	1.0	6
89	Remote and deep attestations to mitigate threats in Cloud Mash-Up services. , 2013, , .		6
90	Towards the future internet: the RESERVOIR, VISION Cloud, and CloudWave experiences. International Journal of High Performance Computing and Networking, 2015, 8, 235.	0.4	6

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91	Human-Computer Interface Based on IoT Embedded Systems for Users with Disabilities. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2015, , 376-383.	0.2	6
92	Design of an IoT Cloud System for Container Virtualization on Smart Objects. Communications in Computer and Information Science, 2016, , 33-47.	0.4	6
93	An approach to share MRI data over the Cloud preserving patients' privacy. , 2017, , .		6
94	Big MRI Data Dissemination and Retrieval in a Multi-Cloud Hospital Storage System. , 2017, , .		6
95	A big video data transcoding service for social media over federated clouds. Multimedia Tools and Applications, 2020, 79, 9037-9061.	2.6	6
96	An Osmotic Computing Enabled Domain Naming System (OCE-DNS) for distributed service relocation between cloud and edge. Computers and Electrical Engineering, 2021, 96, 107578.	3.0	6
97	A Model for Accomplishing and Managing Dynamic Cloud Federations. , 2014, , .		5
98	Improving desktop as a Service in OpenStack. , 2016, , .		5
99	Evaluating alternative DaaS solutions in private and public OpenStack Clouds. Software - Practice and Experience, 2017, 47, 1185-1200.	2.5	5
100	A note on resource management techniques and systems for big data workflow processing. Computing (Vienna/New York), 2018, 100, 1-2.	3.2	5
101	A Microservices-Based Platform for Efficiently Managing Oceanographic Data. , 2018, , .		5
102	Designing a FIWARE Cloud Solution for Making Your Travel Smoother: The FLIWARE Experience. , 2018, , .		5
103	A Scalable Cloud-Edge Computing Framework for Supporting Device-Adaptive Big Media Provisioning. , 2018, , .		5
104	Osmotic Flow Deployment Leveraging FaaS Capabilities. Lecture Notes in Computer Science, 2019, , 391-401.	1.0	5
105	Heart Disorder Detection with Menard Algorithm on Apache Spark. Lecture Notes in Computer Science, 2017, , 229-237.	1.0	5
106	A Big Data Analytics Approach for the Development of Advanced Cardiology Applications. Information (Switzerland), 2020, 11, 60.	1.7	5
107	Overcoming security limitations of Secret Share techniques: the Nested Secret Share. , 2021, , .		5
108	A naming system applied to a RESERVOIR cloud. , 2010, , .		4

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109	How a structured testbed enables the rapid development and deployment of cloud services: The VISION Cloud use case. , 2012, , .		4
110	Enforcement of global security policies in federated cloud networks with virtual network functions. , 2016, , .		4
111	An architecture for securing federated cloud networks with Service Function Chaining. , 2016, , .		4
112	Security and IoT Cloud Federation: Design of Authentication Schemes. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2016, , 337-346.	0.2	4
113	A Recommendation-Based Approach for Cloud Service Brokerage: A Case Study in Public Administration. , 2017, , .		4
114	BOSS: A Multitenancy Ad-Hoc Service Orchestrator for Federated Openstack Clouds. , 2017, , .		4
115	Osmotic Computing: Software Defined Membranes meet Private/Federated Blockchains. , 2018, , .		4
116	Towards the Basic Principles of Osmotic Computing: A Closed-Loop Gamified Cognitive Rehabilitation Flow Model. , 2018, , .		4
117	Infrastructureless IoT-as-a-Service for Public Safety and Disaster Response. , 2019, , .		4
118	On the Applicability of Secret Share Algorithms for Osmotic Computing. , 2020, , .		4
119	Trusted Ecosystem for IoT Service Provisioning Based on Brokering. , 2021, , .		4
120	Recent Considerations on Gaming Console Based Training for Multiple Sclerosis Rehabilitation. Medical Sciences (Basel, Switzerland), 2022, 10, 13.	1.3	4
121	CLEVER: A Cloud Cross-Computing Platform Leveraging GRID Resources. , 2011, , .		3
122	How to exploit grid infrastructures for federated cloud purposes with CLEVER. International Journal of Computational Science and Engineering, 2013, 8, 253.	0.4	3
123	A Secure Self-Identification Mechanism for Enabling IoT Devices to Join Cloud Computing. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2015, , 306-311.	0.2	3
124	A Hybrid Storage Service for the Management of Big e-Health Data. , 2016, , .		3
125	Enriched E-R model to design hybrid database for big data solutions. , 2016, , .		3
126	An Innovative MapReduce-Based Approach of Dijkstra's Algorithm for SDN Routing in Hybrid Cloud, Edge and IoT Scenarios. Lecture Notes in Computer Science, 2018, , 185-198.	1.0	3

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127	Virtual Device Model extending NGSI-LD for FaaS at the Edge. , 2021, , .		3
128	Cloud Federation to Elastically Increase MapReduce Processing Resources. Lecture Notes in Computer Science, 2014, , 97-108.	1.0	3
129	A Message Oriented Middleware for Cloud Computing To Improve Efficiency in Risk Management Systems. Scalable Computing, 2014, 14, .	0.7	3
130	Evaluating a File Fragmentation System for Multi-Provider Cloud Storage. Scalable Computing, 2014, 14, .	0.7	3
131	Toward Cloud Federation. , 2012, , 1-17.		3
132	Improving Tele-Rehabilitation Therapy Through Machine Learning with a NoSQL Graph DBMS Approach. , 2020, , .		3
133	Multi Hop Reconfiguration of End-Devices in Heterogeneous Edge-IoT Mesh Networks. , 2021, , .		3
134	Design and Implementation of an XML-Based Grid File Storage System with Security Features. , 2009, , .		2
135	An XRI naming system for dynamic and federated clouds: a performance analysis. Journal of Internet Services and Applications, 2011, 2, 191-205.	1.6	2
136	Costs of a federated and hybrid cloud environment aimed at MapReduce video transcoding. , 2015, , .		2
137	Exploiting Internet-of-Things: Platforms and Business Models. Springer Proceedings in Business and Economics, 2018, , 101-118.	0.3	2
138	Big Data HIS of the IRCCS-ME Future: The Osmotic Computing Infrastructure. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2018, , 199-207.	0.2	2
139	Analysis of a NoSQL Graph DBMS for a Hospital Social Network. , 2018, , .		2
140	Basic Principles of Osmotic Computing: Secure and Dependable MicroElements (MELs) Orchestration Leveraging Blockchain Facilities. , 2018, , .		2
141	A Map-Reduce Approach for the Dijkstra Algorithm in SDN Over Osmotic Computing Systems. International Journal of Parallel Programming, 2021, 49, 347-375.	1.1	2
142	An Approach to Evaluate Applications Running on Web-Based Remote Virtual Machines in Cloud Computing. Communications in Computer and Information Science, 2015, , 106-117.	0.4	2
143	Modeling Usersâ€™ Performance: Predictive Analytics in an IoT Cloud Monitoring System. Lecture Notes in Computer Science, 2020, , 149-158.	1.0	2
144	Design of a cloud naming framework. , 2010, , .		1

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145	Ecosystem of Cloud Naming Systems: An Approach for the Management and Integration of Independent Cloud Name Spaces. , 2010, , .		1
146	Automating the Hadoop configuration for easy setup in resilient cloud systems. , 2014, , .		1
147	Resource Management in Cloud Federation Using XMPP. , 2014, , .		1
148	From VISION Cloud to Cloudwave: Towards the Future Internet and a New Generation of Services. , 2014, , .		1
149	Re-powering Service Provisioning in Federated Cloud Ecosystems: An Algorithm Combining Energy Sustainability and Cost-Saving Strategies. Communications in Computer and Information Science, 2018, , 19-33.	0.4	1
150	C4E: Cloud Brokering Platform for Federated Services Aimed at European Public Administrations. Communications in Computer and Information Science, 2018, , 187-191.	0.4	1
151	Towards Osmotic Computing: Future Prospect for the Health Information Technology (HIT) Systems of ISASI-CNR (ME). , 2018, , .		1
152	OCE-DNS: an innovative Osmotic Computing Enabled Domain Name System. , 2021, , .		1
153	A Scientometric Analysis of Cloud Computing and QoE Literature to Design a Cloud Platform of Experience for Digital Business. Communications in Computer and Information Science, 2016, , 276-288.	0.4	1
154	Delegation across storage clouds: on-boarding federation as a case study. Scalable Computing, 2014, 14, .	0.7	1
155	An Innovative Open Source Middleware for Managing Virtual Resources in Federated Clouds. , 0, , 61-89.		1
156	Towards Energy Sustainability in Federated and Interoperable Clouds. Advances in Systems Analysis, Software Engineering, and High Performance Computing Book Series, 0, , 329-350.	0.5	1
157	Towards Energy Sustainability in Federated and Interoperable Clouds. , 0, , 279-301.		1
158	Embedded systems for supporting computer accessibility. Studies in Health Technology and Informatics, 2015, 217, 378-85.	0.2	1
159	Credential Management Enforcement and Secure Data Storage in gLite. International Journal of Distributed Systems and Technologies, 2010, 1, 76-97.	0.6	0
160	A Federated System for MapReduce-Based Video Transcoding to Face the Future Massive Video-Selfie Sharing Trend. Communications in Computer and Information Science, 2016, , 48-62.	0.4	0
161	Networking Introspection and Analysis for Virtual Machine Migration in Federated Clouds. Communications in Computer and Information Science, 2016, , 353-362.	0.4	0
162	A Motivating Case Study for Coordinating Deployment of Security VNF in Federated Cloud Networks. Communications in Computer and Information Science, 2018, , 34-42.	0.4	0

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163	CLEVER. , 2012, , 219-241.		0
164	Delegation for On-boarding Federation Across Storage Clouds. Communications in Computer and Information Science, 2013, , 59-70.	0.4	0
165	Securing the External Interfaces of a Federated Infrastructure Cloud. , 2013, , 1876-1903.		0
166	Sensed Data Sharing in Cloud Federation for Advances in Health Information Exchange. International Journal on Measurement Technologies and Instrumentation Engineering, 2013, 3, 36-50.	0.3	0
167	Future Internet: Cloud-Based Open Business Models. Lecture Notes in Information Systems and Organisation, 2016, , 51-62.	0.4	0
168	An Osmotic Ecosystem for Data Streaming Applications in Smart Cities. , 2020, , .		0
169	IEEE Transactions on Sustainable Computing Special Issue on Sustainability of Fog/Edge Computing Systems. IEEE Transactions on Sustainable Computing, 2022, 7, 248-249.	2.2	0