

Paulo Maciel

List of Publications by Year in descending order

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100
papers

1,508
citations

430874

18
h-index

501196

28
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100
all docs

100
docs citations

100
times ranked

786
citing authors

#	ARTICLE	IF	CITATIONS
1	Reliability of Wireless Sensor Networks. <i>Sensors</i> , 2014, 14, 15760-15785.	3.8	80
2	An availability model for eucalyptus platform: An analysis of warm-standby replication mechanism. , 2012, , .		58
3	Sensitivity analysis of a hierarchical model of mobile cloud computing. <i>Simulation Modelling Practice and Theory</i> , 2015, 50, 151-164.	3.8	56
4	Availability study on cloud computing environments: Live migration as a rejuvenation mechanism. , 2013, , .		53
5	Evaluating the Power Consumption of Wireless Sensor Network Applications Using Models. <i>Sensors</i> , 2013, 13, 3473-3500.	3.8	48
6	Eucalyptus-based private clouds: availability modeling and comparison to the cost of a public cloud. <i>Computing (Vienna/New York)</i> , 2015, 97, 1121-1140.	4.8	44
7	Quantifying the sustainability impact of data center availability. <i>Performance Evaluation Review</i> , 2010, 37, 64-68.	0.6	42
8	Redundant Eucalyptus Private Clouds: Availability Modeling and Sensitivity Analysis. <i>Journal of Grid Computing</i> , 2017, 15, 1-22.	3.9	40
9	ASTRO: An integrated environment for dependability and sustainability evaluation. <i>Sustainable Computing: Informatics and Systems</i> , 2013, 3, 1-17.	2.2	39
10	Experimental evaluation of software aging effects on the eucalyptus cloud computing infrastructure. , 2011, , .		38
11	Software aging issues on the eucalyptus cloud computing infrastructure. , 2011, , .		36
12	Software aging in the eucalyptus cloud computing infrastructure. <i>ACM Journal on Emerging Technologies in Computing Systems</i> , 2014, 10, 1-22.	2.3	34
13	A Modeling Approach for Cloud Infrastructure Planning Considering Dependability and Cost Requirements. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , 2015, 45, 549-558.	9.3	33
14	Software Rejuvenation in Eucalyptus Cloud Computing Infrastructure: A Method Based on Time Series Forecasting and Multiple Thresholds. , 2011, , .		32
15	An Integrated Modeling Approach to Evaluate and Optimize Data Center Sustainability, Dependability and Cost. <i>Energies</i> , 2014, 7, 238-277.	3.1	32
16	Models for availability and power consumption evaluation of a private cloud with VMM rejuvenation enabled by VM Live Migration. <i>Journal of Supercomputing</i> , 2018, 74, 4817-4841.	3.6	32
17	Availability Evaluation of Digital Library Cloud Services. , 2014, , .		26
18	Mercury: Performance and Dependability Evaluation of Systems with Exponential, Expolynomial, and General Distributions. , 2017, , .		25

#	ARTICLE	IF	CITATIONS
19	Decision making in cloud environments: an approach based on multiple-criteria decision analysis and stochastic models. Journal of Cloud Computing: Advances, Systems and Applications, 2018, 7, .	3.9	25
20	Estimating sustainability impact of high dependable data centers: a comparative study between Brazilian and US energy mixes. Computing (Vienna/New York), 2013, 95, 1137-1170.	4.8	24
21	Dependability models for designing disaster tolerant cloud computing systems. , 2013, , .		24
22	Availability modeling and analysis of a disaster-recovery-as-a-service solution. Computing (Vienna/New) Tj ETQq0 0 0 r gBT /Overlock 10 T	4.8	24
23	Availability Evaluation and Sensitivity Analysis of a Mobile Backendâ€sâ€sâ€s-service Platform. Quality and Reliability Engineering International, 2016, 32, 2191-2205.	2.3	23
24	Stochastic performance model for web server capacity planning in fog computing. Journal of Supercomputing, 2020, 76, 9533-9557.	3.6	21
25	Analytical models for availability evaluation of edge and fog computing nodes. Journal of Supercomputing, 2021, 77, 9905-9933.	3.6	21
26	Mobile Cloud Performance Evaluation Using Stochastic Models. IEEE Transactions on Mobile Computing, 2018, 17, 1134-1147.	5.8	20
27	Models for dependability and sustainability analysis of data center cooling architectures. , 2012, , .		19
28	Characterization of Software Aging Effects in Elastic Storage Mechanisms for Private Clouds. , 2012, , .		19
29	Comparative Analysis of Migration-Based Rejuvenation Schedules on Cloud Availability. , 2013, , .		19
30	Dependability assessment of virtualized networks. , 2012, , .		16
31	Availability model for edge-fog-cloud continuum: an evaluation of an end-to-end infrastructure of intelligent traffic management service. Journal of Supercomputing, 2022, 78, 4421-4448.	3.6	16
32	Hard real-time tasks' scheduling considering voltage scaling, precedence and exclusion relations. Information Processing Letters, 2008, 108, 50-59.	0.6	14
33	Integrated Evaluation of Reliability and Power Consumption of Wireless Sensor Networks. Sensors, 2017, 17, 2547.	3.8	14
34	A Power Load Distribution Algorithm to Optimize Data Center Electrical Flow. Energies, 2013, 6, 3422-3443.	3.1	13
35	Dependable virtual network mapping. Computing (Vienna/New York), 2015, 97, 459-481.	4.8	13
36	Capacity-Oriented Availability Model for Resources Estimation on Private Cloud Infrastructure. , 2017, , .		13

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37	Dependability Evaluation of a Blockchain-as-a-Service Environment. , 2018, , .		13
38	Performability Evaluation and Optimization of Workflow Applications in Cloud Environments. Journal of Grid Computing, 2019, 17, 749-770.	3.9	13
39	A survey on reliability and availability modeling of edge, fog, and cloud computing. Journal of Reliable Intelligent Environments, 2022, 8, 227-245.	5.2	13
40	Performance Modeling for Evaluation and Planning of Electronic Funds Transfer Systems with Bursty Arrival Traffic. , 2009, , .		12
41	Advanced Stochastic Petri Net Modeling with the Mercury Scripting Language. , 2017, , .		12
42	A Model for Availability and Security Risk Evaluation for Systems With VMM Rejuvenation Enabled by VM Migration Scheduling. IEEE Access, 2019, 7, 138315-138326.	4.2	12
43	Availability and reliability modeling of VM migration as rejuvenation on a system under varying workload. Software Quality Journal, 2020, 28, 59-83.	2.2	12
44	SWARE: A Methodology for Software Aging and Rejuvenation Experiments. Journal of Information Systems Engineering and Management, 2018, 3, .	0.7	12
45	Cloud infrastructure planning considering different redundancy mechanisms. Computing (Vienna/New York), 2017, 99, 841-864.	4.8	11
46	Dependability Evaluation of an IoT System: A Hierarchical Modelling Approach. , 2019, , .		11
47	Experimental evaluation of software aging effects in the eucalyptus elastic block storage. , 2012, , .		10
48	EucaBomber: Experimental Evaluation of Availability in Eucalyptus Private Clouds. , 2013, , .		10
49	Availability and Energy Consumption Analysis of Mobile Cloud Environments. , 2013, , .		10
50	Using Coloured Petri Nets for Evaluating the Power Consumption of Wireless Sensor Networks. International Journal of Distributed Sensor Networks, 2014, 10, 423537.	2.2	10
51	Hierarchical Model and Sensitivity Analysis for a Cloud-Based VoD Streaming Service. , 2016, , .		10
52	Distributed application provisioning over Ethereum-based private and permissioned blockchain: availability modeling, capacity, and costs planning. Journal of Supercomputing, 2021, 77, 9615-9641.	3.6	10
53	OpenMADS: An Open Source Tool for Modeling and Analysis of Distributed Systems. Lecture Notes in Computer Science, 2013, , 277-284.	1.3	10
54	Mapping UML Interaction Overview Diagram to Time Petri Net for Analysis and Verification of Embedded Real-Time Systems with Energy Constraints. , 2008, , .		9

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55	Model-driven software synthesis for hard real-time applications with energy constraints. Design Automation for Embedded Systems, 2010, 14, 327-366.	1.0	9
56	Redundant VoD Streaming Service in a Private Cloud: Availability Modeling and Sensitivity Analysis. Mathematical Problems in Engineering, 2014, 2014, 1-14.	1.1	9
57	Multi-objective optimization of multimedia embedded systems using genetic algorithms and stochastic simulation. Soft Computing, 2017, 21, 4141-4158.	3.6	9
58	An approach to investigate aging symptoms and rejuvenation effectiveness on software systems. , 2017, , .		9
59	Performance prediction for supporting mobile applicationsâ€™ offloading. Journal of Supercomputing, 2018, 74, 4060-4103.	3.6	9
60	Iterated local search with tabu search for the weighted vertex coloring problem. Computers and Operations Research, 2021, 125, 105087.	4.0	9
61	Software Rejuvenation in Computer Systems: An Automatic Forecasting Approach Based on Time Series. , 2018, , .		8
62	A Hybrid Mechanism of Horizontal Auto-scaling Based on Thresholds and Time Series. , 2019, , .		8
63	The Mercury Environment: A Modeling Tool for Performance and Dependability Evaluation. Ambient Intelligence and Smart Environments, 2021, , .	0.3	8
64	Performability evaluation of EFT systems for SLA assurance. , 2009, , .		7
65	GeoClouds Modcs: A performability evaluation tool for disaster tolerant IaaS clouds. , 2014, , .		7
66	Impact of capacity and discharging rate on battery life time: A stochastic model to support mobile device autonomy planning. Pervasive and Mobile Computing, 2017, 39, 180-194.	3.3	7
67	Security and Availability Modeling of VM Migration as Moving Target Defense. , 2020, , .		7
68	Performance and energy consumption estimation for commercial off-the-shelf component system design. Innovations in Systems and Software Engineering, 2010, 6, 107-114.	2.1	6
69	The Effects of Temperature Variation on Data Center IT Systems. , 2013, , .		6
70	Models for hyper-converged cloud computing infrastructures planning. International Journal of Grid and Utility Computing, 2020, 11, 196.	0.2	6
71	Building energy consumption models based on smartphone userâ€™s usage patterns. Knowledge-Based Systems, 2021, 213, 106680.	7.1	6
72	Models to evaluate service Provisioning over Cloud Computing Environments - A Blockchain-As-A-Service case study. Revista De Informatica Teorica E Aplicada, 2019, 26, 65-74.	0.2	6

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73	Performance and availability evaluation of the blockchain platform hyperledger fabric. Journal of Supercomputing, 2022, 78, 12505-12527.	3.6	6
74	Performance modeling for evaluation and planning of Electronic Funds Transfer Systems. , 2009, , .		5
75	Performability modeling of electronic funds transfer systems. Computing (Vienna/New York), 2011, 91, 315-334.	4.8	5
76	IaaS Cloud Availability Planning using Models and Genetic Algorithms. , 2019, , .		5
77	A time Petri net-based method for embedded hard real-time software synthesis. Design Automation for Embedded Systems, 2008, 12, 31-62.	1.0	4
78	Stochastic Modeling of Auto Scaling Mechanism in Private Clouds for Supporting Performance Tuning. , 2015, , .		4
79	Sensitivity analysis of an availability model for disaster tolerant cloud computing system. International Journal of Network Management, 2018, 28, e2040.	2.2	4
80	Data centers' services restoration based on the decision-making of distributed agents. Telecommunication Systems, 2020, 74, 367-378.	2.5	4
81	A model-based approach for planning blockchain service provisioning. Computing (Vienna/New York), 2022, 104, 315-337.	4.8	4
82	Screening hardware and volume factors in distributed machine learning algorithms on spark. Computing (Vienna/New York), 2021, 103, 2203-2225.	4.8	4
83	Dependability Impact in the Smart Solar Power Systems: An Analysis of Smart Buildings. Energies, 2021, 14, 124.	3.1	4
84	Model-Driven Impact Quantification of Energy Resource Redundancy and Server Rejuvenation on the Dependability of Medical Sensor Networks in Smart Hospitals. Sensors, 2022, 22, 1595.	3.8	4
85	Performability evaluation of EFT systems using exponential stochastic models. , 2009, , .		3
86	Eucabomber 2.0: A tool for dependability tests in eucalyptus cloud infrastructures considering VM life-cycle. , 2014, , .		3
87	A Hierarchical Model for Virtualized Data Center Availability Evaluation. , 2019, , .		3
88	Dependability and Sustainability Evaluation of Data Center Electrical Architectures. , 2021, , .		3
89	Dependability and Sensitivity Analysis in Dense Data Center Networks. , 2021, , .		3
90	Model-Based Performability and Dependability Evaluation of a System with VM Migration as Rejuvenation in the Presence of Bursty Workloads. Journal of Network and Systems Management, 2022, 30, 1.	4.9	3

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91	Calau: An environment for modeling and analyzing embedded real-time systems. , 2012, , .		2
92	An Algorithm to Optimize Electrical Flows of Private Cloud Infrastructures. , 2015, , .		2
93	Synchronization server infrastructure: A relationship between system downtime and deployment cost. , 2017, , .		2
94	Bottleneck Detection in Cloud Computing Performance and Dependability: Sensitivity Rankings for Hierarchical Models. Journal of Network and Systems Management, 2020, 28, 1839-1871.	4.9	2
95	PyMTDEvaluator: A Tool for Time-Based Moving Target Defense Evaluation: Tool description paper. , 2021, , .		2
96	A COTS-based approach for estimating performance and energy consumption of embedded real-time systems. Information Processing Letters, 2010, 110, 525-534.	0.6	1
97	An Algorithm to Optimize Electrical Flows. , 2013, , .		1
98	A simulation optimization approach for design space exploration of soft real-time embedded systems. , 2013, , .		1
99	Reliability-and-Availability Sensitivity Analysis on Convergent Network Infrastructures: Methodology and Case Study. , 2021, , .		1
100	Availability evaluation of system service hosted in private cloud computing through hierarchical modeling process. Journal of Supercomputing, 0, , 1.	3.6	1