

Nicola Mazzocca

List of Publications by Year in descending order

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140
papers

1,586
citations

430874

18
h-index

526287

27
g-index

148
all docs

148
docs citations

148
times ranked

1098
citing authors

#	ARTICLE	IF	CITATIONS
1	Using log analytics and process mining to enable self-healing in the Internet of Things. Environment Systems and Decisions, 2022, 42, 234-250.	3.4	4
2	SPHERE: A Multi-SoC Architecture for Next-Generation Cyber-Physical Systems Based on Heterogeneous Platforms. IEEE Access, 2021, 9, 75446-75459.	4.2	14
3	Advancing synthesis of decision tree-based multiple classifier systems: an approximate computing case study. Knowledge and Information Systems, 2021, 63, 1577-1596.	3.2	8
4	Interoperable Blockchains for Highly-Integrated Supply Chains in Collaborative Manufacturing. Sensors, 2021, 21, 4955.	3.8	29
5	On the Adoption of Physically Unclonable Functions to Secure IIoT Devices. IEEE Transactions on Industrial Informatics, 2021, 17, 7781-7790.	11.3	14
6	An OSLC-based environment for system-level functional testing of ERTMS/ETCS controllers. Journal of Systems and Software, 2020, 161, 110478.	4.5	8
7	An abstract reasoning architecture for privacy policies monitoring. Future Generation Computer Systems, 2020, 106, 393-400.	7.5	5
8	Efficient Reed-Muller Implementation for Fuzzy Extractor Schemes. , 2019, , .		5
9	PUF-Enabled Authentication-as-a-Service in Fog-IoT Systems. , 2019, , .		7
10	A PUF-based mutual authentication scheme for Cloud-Edges IoT systems. Future Generation Computer Systems, 2019, 101, 246-261.	7.5	43
11	A model-driven approach for vulnerability evaluation of modern physical protection systems. Software and Systems Modeling, 2019, 18, 523-556.	2.7	13
12	A PUF-based hardware mutual authentication protocol. Journal of Parallel and Distributed Computing, 2018, 119, 107-120.	4.1	31
13	Model driven design and evaluation of security level in orchestrated cloud services. Journal of Network and Computer Applications, 2018, 106, 78-89.	9.1	22
14	Multi-agent Collaborative Planning in Smart Environments. Lecture Notes on Data Engineering and Communications Technologies, 2018, , 250-261.	0.7	1
15	A Model-Based Evaluation Methodology for Smart Energy Systems. , 2018, , .		0
16	An abstraction layer enabling pervasive hardware-reconfigurable systems. International Journal of Embedded Systems, 2018, 10, 366.	0.3	0
17	Correlation of Digital Evidences in Forensic Investigation through Semantic Technologies. , 2017, , .		10
18	Multilayer Perceptron: An Intelligent Model for Classification and Intrusion Detection. , 2017, , .		22

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19	Self Planning in Critical Multi-Agent Systems. Lecture Notes on Data Engineering and Communications Technologies, 2017, , 315-324.	0.7	0
20	Dynamic state machines for modelling railway control systems. Science of Computer Programming, 2017, 133, 116-153.	1.9	16
21	OFL: A Language for Cloud Orchestration. , 2017, , .		1
22	Semantic Integration and Correlation of Digital Evidences in Forensic Investigations. Lecture Notes on Data Engineering and Communications Technologies, 2017, , 415-424.	0.7	3
23	Outperforming Image Segmentation by Exploiting Approximate K-Means Algorithms. Springer Proceedings in Mathematics and Statistics, 2017, , 31-38.	0.2	0
24	A Formal Model for Autonomous Planning in High Performance Systems. Procedia Computer Science, 2016, 98, 503-508.	2.0	0
25	Cost-energy modelling and profiling of smart domestic grids. International Journal of Grid and Utility Computing, 2016, 7, 257.	0.2	11
26	ÂµGRIMOIRE: A Tool for Smart Micro Grids Modelling and Energy Profiling. Open Cybernetics and Systemics Journal, 2016, 10, 263-282.	0.3	5
27	Fuzzy Decision Fusion and Multiformalism Modelling in Physical Security Monitoring. Studies in Computational Intelligence, 2016, , 71-100.	0.9	3
28	Cost-energy modelling and profiling of smart domestic grids. International Journal of Grid and Utility Computing, 2016, 7, 257.	0.2	2
29	Semantically driven documents composition in CloSe cloud system. International Journal of Computational Science and Engineering, 2015, 11, 68.	0.5	6
30	Model-Based Water Quality Assurance in Ground and Surface Provisioning Systems. , 2015, , .		3
31	An integrated framework for securing semi-structured health records. Knowledge-Based Systems, 2015, 79, 99-117.	7.1	31
32	A Model Driven Approach to Water Resource Analysis based on Formal Methods and Model Transformation. Procedia Computer Science, 2015, 51, 562-571.	2.0	1
33	Using Bayesian Networks to evaluate the trustworthiness of \hat{c}^2 out of $3\hat{c}^{\text{TM}}$ decision fusion mechanisms in multi-sensor applications. IFAC-PapersOnLine, 2015, 48, 682-687.	0.9	6
34	Testing 90 nm microcontroller SRAM PUF quality. , 2015, , .		16
35	Towards Model-Driven Assessment of Clinical Processes. Smart Innovation, Systems and Technologies, 2015, , 121-132.	0.6	0
36	A MULTIFORMALISM MODULAR APPROACH TO ERTMS/ETCS FAILURE MODELING. International Journal of Reliability, Quality and Safety Engineering, 2014, 21, 1450001.	0.6	25

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37	A Cost-Energy Trade-Off Model in Smart Energy Grids. , 2014, , .		2
38	A hardware accelerator for data classification within the sensing infrastructure. , 2014, , .		10
39	A compositional modelling approach for live migration in Software Defined Networks. , 2014, , .		1
40	High Speed Speculative Multipliers Based on Speculative Carry-Save Tree. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 3426-3435.	5.4	42
41	ASP-based optimized mapping in a simulink-to-MPSoC design flow. Journal of Systems Architecture, 2014, 60, 108-118.	4.3	3
42	The dynamic placement of virtual network functions. , 2014, , .		151
43	A Semantic Support for Testing Activities of Safety-Critical Embedded Systems. , 2014, , .		2
44	Traffic dynamics and vulnerability in hypercube communication networks. , 2014, , .		2
45	Towards Model-Driven V&V assessment of railway control systems. International Journal on Software Tools for Technology Transfer, 2014, 16, 669-683.	1.9	23
46	Automated design space exploration for FPGA-based heterogeneous interconnects. Design Automation for Embedded Systems, 2014, 18, 157-170.	1.0	4
47	An Interoperable Testing Environment for ERTMS/ETCS Control Systems. Lecture Notes in Computer Science, 2014, , 147-156.	1.3	13
48	Developing Secure Cloud Applications. Scalable Computing, 2014, 15, .	1.0	1
49	Design space exploration for high-level synthesis of multi-threaded applications. Journal of Systems Architecture, 2013, 59, 1171-1183.	4.3	32
50	Enabling the usage of UML in the verification of railway systems: The DAM-rail approach. Reliability Engineering and System Safety, 2013, 120, 112-126.	8.9	44
51	A System for Semantic-Based Access Control. , 2013, , .		4
52	An integrated lifetime and network quality model of large WSNs. , 2013, , .		3
53	A Compositional Modelling Approach for Large Sensor Networks Design. , 2013, , .		3
54	TrustedSIM: Towards Unified Mobile Security. , 2013, , .		0

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55	Exploiting Vulnerabilities in Cryptographic Hash Functions Based on Reconfigurable Hardware. IEEE Transactions on Information Forensics and Security, 2013, 8, 810-820.	6.9	29
56	Model-Driven Estimation of Distributed Vulnerability in Complex Railway Networks. , 2013, , .		9
57	Developing Secure Cloud Applications: A Case Study. , 2013, , .		1
58	Vulnerability modeling and analysis for critical infrastructure protection applications. International Journal of Critical Infrastructure Protection, 2013, 6, 217-227.	4.6	56
59	Efficient and Scalable OpenMP-based System-level Design. , 2013, , .		22
60	Exploring a New Dimension in Code Mobility for Ubiquitous Embedded Systems. , 2013, , .		0
61	A semantic approach for fine-grain access control of e-health documents. Logic Journal of the IGPL, 2013, 21, 692-701.	1.5	26
62	Manifesto of edge ICT fabric. , 2013, , .		8
63	SIREN: a feasible moving target defence framework for securing resource-constrained embedded nodes. International Journal of Critical Computer-Based Systems, 2013, 4, 374.	0.1	6
64	SeNsiM-SEC: secure sensor networks integration to monitor rail freight transport. International Journal of System of Systems Engineering, 2013, 4, 291.	0.5	3
65	A smart decision support systems based on a fast classifier and a semantic post reasoner. International Journal of System of Systems Engineering, 2013, 4, 317.	0.5	5
66	Performance Evaluation of Video Analytics for Surveillance On-Board Trains. Lecture Notes in Computer Science, 2013, , 414-425.	1.3	3
67	Trustworthiness Evaluation of Multi-sensor Situation Recognition in Transit Surveillance Scenarios. Lecture Notes in Computer Science, 2013, , 442-456.	1.3	9
68	Petri Net Modelling of Physical Vulnerability. Lecture Notes in Computer Science, 2013, , 128-139.	1.3	10
69	CloSe: A Cloud SaaS for Semantic Document Composition. , 2012, , .		3
70	Freight Train monitoring: A Case-Study for the pSHIELD Project. , 2012, , .		14
71	Model-Driven V&V Processes for Computer Based Control Systems: A Unifying Perspective. Lecture Notes in Computer Science, 2012, , 190-204.	1.3	11
72	A SAN-Based Modeling Approach to Performance Evaluation of an IMS-Compliant Conferencing Framework. Lecture Notes in Computer Science, 2012, , 308-333.	1.3	4

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73	Performance Analysis of an OSCP-Based Authentication Protocol for VANETs. International Journal of Adaptive Resilient and Autonomic Systems, 2012, 3, 19-45.	0.3	4
74	Solution Workflows for Model-Based Analysis of Complex Systems. IEEE Transactions on Automation Science and Engineering, 2011, , .	5.2	16
75	A Semantic-based Document Processing Framework: A Security Perspective. , 2011, , .		18
76	SeNsIM-SEC: Security in Heterogeneous Sensor Networks. , 2011, , .		8
77	Analysis and Comparison of Security Protocols in Wireless Sensor Networks. , 2011, , .		15
78	Optimisation of security system design by quantitative risk assessment and genetic algorithms. International Journal of Risk Assessment and Management, 2011, 15, 205.	0.1	6
79	Revisiting Application-Dependent Test for FPGA Devices. , 2011, , .		2
80	An Integrated Approach for Availability and QoS Evaluation in Railway Systems. Lecture Notes in Computer Science, 2011, , 171-184.	1.3	11
81	Augmenting Surveillance System Capabilities by Exploiting Event Correlation and Distributed Attack Detection. Lecture Notes in Computer Science, 2011, , 191-204.	1.3	10
82	Modeling of Railway Logics for Reverse Engineering, Verification and Refactoring. International Journal of Safety and Security Engineering, 2011, 1, 77-94.	1.0	1
83	Multiformalism techniques for critical infrastructure modelling. International Journal of System of Systems Engineering, 2010, 2, 19.	0.5	4
84	Securing a tiered re-taskable sensing system. , 2010, , .		1
85	A Service-Based Architecture for the Interoperability of Heterogeneous Sensor data: A Case Study on Early Warning. Lecture Notes in Geoinformation and Cartography, 2010, , 249-263.	1.0	4
86	Time Efficient Dual-Field Unit for Cryptography-Related Processing. International Federation for Information Processing, 2010, , 191-210.	0.4	0
87	Wireless Sensor Data Fusion for Critical Infrastructure Security. Advances in Soft Computing, 2009, , 92-99.	0.4	17
88	Automatic instantiation of abstract tests on specific configurations for large critical control systems. Software Testing Verification and Reliability, 2009, 19, 91-110.	2.0	10
89	A new modeling approach to the safety evaluation of N-modular redundant computer systems in presence of imperfect maintenance. Reliability Engineering and System Safety, 2009, 94, 1422-1432.	8.9	30
90	Quantitative Security Risk Assessment and Management for Railway Transportation Infrastructures. Lecture Notes in Computer Science, 2009, , 180-189.	1.3	16

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91	A Study on Multiformalism Modeling of Critical Infrastructures. Lecture Notes in Computer Science, 2009, , 336-343.	1.3	7
92	Self-optimization of secure web services. Computer Communications, 2008, 31, 4312-4323.	5.1	8
93	Virtual Scan Chains for Online Testing of FPGA-based Embedded Systems. , 2008, , .		1
94	An Agent-Based Approach for Distributed Execution of Composite Web Services. , 2008, , .		6
95	Automatic Analysis of Control Flow in Web Services Composition Processes. Parallel, Distributed and Network-based Processing, Proceedings of the Euromicro Workshop on, 2007, , .	0.0	16
96	Web Services workflow reliability estimation through reliability patterns. , 2007, , .		16
97	A policy-based methodology for security evaluation: A Security Metric for Public Key Infrastructures. Journal of Computer Security, 2007, 15, 197-229.	0.8	37
98	Towards Semantics Driven Generation of Executable Web Services Compositions. Journal of Software, 2007, 2, .	0.6	16
99	Interoperable Grid PKIs Among Untrusted Domains: An Architectural Proposal. , 2007, , 39-51.		6
100	Automatic and Dynamic Composition of Web Services Using Ontologies. , 2007, , 230-235.		3
101	Web Services Composition and Delivery Using a Mobile Agents Based Infrastructure. , 2006, , .		6
102	MAGDA: A Mobile Agent based Grid Architecture. Journal of Grid Computing, 2006, 4, 395-412.	3.9	35
103	A Model Analysis of a Distributed Monitoring System Using a Multi-formalism Approach. Lecture Notes in Computer Science, 2006, , 499-508.	1.3	1
104	A SLA evaluation methodology in Service Oriented Architectures. , 2006, , 119-130.		28
105	Design of Policy-Based Security Mechanisms in a Distributed Web Services Architecture. Lecture Notes in Computer Science, 2006, , 454-463.	1.3	2
106	A hierarchical distributed-shared memory parallel Branch&Bound application with PVM and OpenMP for multiprocessor clusters. Parallel Computing, 2005, 31, 1034-1047.	2.1	7
107	Performance Analysis of Hybrid OpenMP/MPI N-Body Application. Lecture Notes in Computer Science, 2005, , 12-18.	1.3	3
108	Workflow Pattern Analysis in Web Services Orchestration: The BPEL4WS Example. Lecture Notes in Computer Science, 2005, , 395-400.	1.3	18

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109	An Innovative Policy-Based Cross Certification Methodology for Public Key Infrastructures. Lecture Notes in Computer Science, 2005, , 100-117.	1.3	12
110	Modeling and logic controller specification of flexible manufacturing systems using behavioral traces and Petri net building blocks. Journal of Intelligent Manufacturing, 2004, 15, 351-371.	7.3	8
111	A tamper resistant hardware accelerator for RSA cryptographic applications. Journal of Systems Architecture, 2004, 50, 711-727.	4.3	11
112	Compositional Modeling of Complex Systems: Contact Center Scenarios in OsMoSys. Lecture Notes in Computer Science, 2004, , 177-196.	1.3	13
113	Title is missing!. Journal of Supercomputing, 2003, 24, 5-24.	3.6	1
114	Mobile Agent Programming for Clusters with Parallel Skeletons. Lecture Notes in Computer Science, 2003, , 622-635.	1.3	4
115	Building a dependable system from a legacy application with CORBA. Journal of Systems Architecture, 2002, 48, 81-98.	4.3	4
116	Efficient model checking of properties of a distributed application: a multimedia case study. Software Testing Verification and Reliability, 2002, 12, 3-21.	2.0	6
117	A Technique for FPGA Synthesis Driven by Automatic Source Code Analysis and Transformations. Lecture Notes in Computer Science, 2002, , 47-58.	1.3	1
118	Parallel program analysis and restructuring by detection of point-to-point interaction patterns and their transformation into collective communication constructs. Science of Computer Programming, 2001, 40, 235-263.	1.9	10
119	Mobile Agents for Distributed and Dynamically Balanced Optimization Applications. Lecture Notes in Computer Science, 2001, , 161-170.	1.3	7
120	Reducing Parallel Program Simulation Complexity by Static Analysis. Journal of Supercomputing, 2000, 17, 299-310.	3.6	0
121	The Modelling Process and Petri Nets: Reasoning on Different Approaches. , 1999, , 37-56.		2
122	Heterogeneous system performance prediction and analysis using PS. IEEE Concurrency, 1998, 6, 20-29.	0.8	27
123	Efficiency measurements in heterogeneous distributed computing systems: from theory to practice. Concurrency and Computation: Practice and Experience, 1998, 10, 285-313.	0.5	11
124	Developing applications for heterogeneous computing environments using simulation: A case study. Parallel Computing, 1998, 24, 741-761.	2.1	14
125	Formal Specification of Concurrent Systems: A Structured Approach. Computer Journal, 1998, 41, 145-162.	2.4	13
126	A Systematic Approach to the Petri Net Based Specification of Concurrent Systems. Real-Time Systems, 1997, 13, 219-236.	1.3	13

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127	A method for predictive performance of distributed programs. Simulation Modelling Practice and Theory, 1997, 5, 65-82.	0.3	1
128	Formal methods integration for the specification of dependable distributed systems. Journal of Systems Architecture, 1997, 43, 671-685.	4.3	2
129	A Systematic Approach to the Petri Net Based Specification of Concurrent Systems. , 1997, , 3-20.		3
130	Design of a simulator of heterogeneous computing environments. Simulation Modelling Practice and Theory, 1996, 4, 97-117.	0.3	11
131	Client - server programs analysis in the EPOCA environment. Distributed Systems Engineering, 1996, 3, 149-161.	0.6	1
132	Paradigms for the parallelization of Branch&Bound algorithms. Lecture Notes in Computer Science, 1996, , 141-150.	1.3	2
133	Performance analysis of distributed memory computers with parallel node architecture. Journal of Systems and Software, 1995, 29, 107-120.	4.5	0
134	Communication Workload Analysis for Symmetrical Concurrent Systems. Journal of Parallel and Distributed Computing, 1994, 20, 224-235.	4.1	1
135	On the computation of performance characteristics of concurrent programs using GSPNs. Performance Evaluation, 1994, 19, 195-222.	1.2	13
136	Software architecture of the EPOCA integrated environment. Lecture Notes in Computer Science, 1994, , 335-352.	1.3	11
137	A transputer-based list mode parallel system for digital radiography with 2D silicon detectors. IEEE Transactions on Nuclear Science, 1993, 40, 996-1000.	2.0	10
138	A parallel architecture for Digital Radiography. , 1992, , .		0
139	An efficient SAR parallel processor. IEEE Transactions on Aerospace and Electronic Systems, 1991, 27, 343-353.	4.7	23
140	Combining Heterogeneity, Compositionality, and Automatic Generation in Formal Modelling. Advances in Systems Analysis, Software Engineering, and High Performance Computing Book Series, 0, , 17-33.	0.5	0