

Nicola Mazzocca

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2587050/publications.pdf>

Version: 2024-02-01

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	The dynamic placement of virtual network functions. , 2014, , .		151
2	Vulnerability modeling and analysis for critical infrastructure protection applications. International Journal of Critical Infrastructure Protection, 2013, 6, 217-227.	4.6	56
3	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
4	A PUF-based mutual authentication scheme for Cloud-Edges IoT systems. Future Generation Computer Systems, 2019, 101, 246-261.	7.5	43
5	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
6	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
7	MAGDA: A Mobile Agent based Grid Architecture. Journal of Grid Computing, 2006, 4, 395-412.	3.9	35
8	Design space exploration for high-level synthesis of multi-threaded applications. Journal of Systems Architecture, 2013, 59, 1171-1183.	4.3	32
9	An integrated framework for securing semi-structured health records. Knowledge-Based Systems, 2015, 79, 99-117.	7.1	31
10	A PUF-based hardware mutual authentication protocol. Journal of Parallel and Distributed Computing, 2018, 119, 107-120.	4.1	31
11	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
12	Exploiting Vulnerabilities in Cryptographic Hash Functions Based on Reconfigurable Hardware. IEEE Transactions on Information Forensics and Security, 2013, 8, 810-820.	6.9	29
13	Interoperable Blockchains for Highly-Integrated Supply Chains in Collaborative Manufacturing. Sensors, 2021, 21, 4955.	3.8	29
14	A SLA evaluation methodology in Service Oriented Architectures. , 2006, , 119-130.		28
15	Heterogeneous system performance prediction and analysis using PS. IEEE Concurrency, 1998, 6, 20-29.	0.8	27
16	A semantic approach for fine-grain access control of e-health documents. Logic Journal of the IGPL, 2013, 21, 692-701.	1.5	26
17	A MULTIFORMALISM MODULAR APPROACH TO ERTMS/ETCS FAILURE MODELING. International Journal of Reliability, Quality and Safety Engineering, 2014, 21, 1450001.	0.6	25
18	An efficient SAR parallel processor. IEEE Transactions on Aerospace and Electronic Systems, 1991, 27, 343-353.	4.7	23

#	ARTICLE	IF	CITATIONS
19	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
20	Efficient and Scalable OpenMP-based System-level Design. , 2013, , .		22
21	Multilayer Perceptron: An Intelligent Model for Classification and Intrusion Detection. , 2017, , .		22
22	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
23	A Semantic-based Document Processing Framework: A Security Perspective. , 2011, , .		18
24	Workflow Pattern Analysis in Web Services Orchestration: The BPEL4WS Example. Lecture Notes in Computer Science, 2005, , 395-400.	1.3	18
25	Wireless Sensor Data Fusion for Critical Infrastructure Security. Advances in Soft Computing, 2009, , 92-99.	0.4	17
26	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
27	Web Services workflow reliability estimation through reliability patterns. , 2007, , .		16
28	Solution Workflows for Model-Based Analysis of Complex Systems. IEEE Transactions on Automation Science and Engineering, 2011, , .	5.2	16
29	Testing 90 nm microcontroller SRAM PUF quality. , 2015, , .		16
30	Dynamic state machines for modelling railway control systems. Science of Computer Programming, 2017, 133, 116-153.	1.9	16
31	Quantitative Security Risk Assessment and Management for Railway Transportation Infrastructures. Lecture Notes in Computer Science, 2009, , 180-189.	1.3	16
32	Towards Semantics Driven Generation of Executable Web Services Compositions. Journal of Software, 2007, 2, .	0.6	16
33	Analysis and Comparison of Security Protocols in Wireless Sensor Networks. , 2011, , .		15
34	Developing applications for heterogeneous computing environments using simulation: A case study. Parallel Computing, 1998, 24, 741-761.	2.1	14
35	Freight Train monitoring: A Case-Study for the pSHIELD Project. , 2012, , .		14
36	SPHERE: A Multi-SoC Architecture for Next-Generation Cyber-Physical Systems Based on Heterogeneous Platforms. IEEE Access, 2021, 9, 75446-75459.	4.2	14

#	ARTICLE	IF	CITATIONS
37	On the Adoption of Physically Unclonable Functions to Secure IIoT Devices. IEEE Transactions on Industrial Informatics, 2021, 17, 7781-7790.	11.3	14
38	On the computation of performance characteristics of concurrent programs using GSPNs. Performance Evaluation, 1994, 19, 195-222.	1.2	13
39	A Systematic Approach to the Petri Net Based Specification of Concurrent Systems. Real-Time Systems, 1997, 13, 219-236.	1.3	13
40	Formal Specification of Concurrent Systems: A Structured Approach. Computer Journal, 1998, 41, 145-162.	2.4	13
41	A model-driven approach for vulnerability evaluation of modern physical protection systems. Software and Systems Modeling, 2019, 18, 523-556.	2.7	13
42	An Interoperable Testing Environment for ERTMS/ETCS Control Systems. Lecture Notes in Computer Science, 2014, , 147-156.	1.3	13
43	Compositional Modeling of Complex Systems: Contact Center Scenarios in OsMoSys. Lecture Notes in Computer Science, 2004, , 177-196.	1.3	13
44	An Innovative Policy-Based Cross Certification Methodology for Public Key Infrastructures. Lecture Notes in Computer Science, 2005, , 100-117.	1.3	12
45	Design of a simulator of heterogeneous computing environments. Simulation Modelling Practice and Theory, 1996, 4, 97-117.	0.3	11
46	Efficiency measurements in heterogeneous distributed computing systems: from theory to practice. Concurrency and Computation: Practice and Experience, 1998, 10, 285-313.	0.5	11
47	A tamper resistant hardware accelerator for RSA cryptographic applications. Journal of Systems Architecture, 2004, 50, 711-727.	4.3	11
48	An Integrated Approach for Availability and QoS Evaluation in Railway Systems. Lecture Notes in Computer Science, 2011, , 171-184.	1.3	11
49	Model-Driven V&V Processes for Computer Based Control Systems: A Unifying Perspective. Lecture Notes in Computer Science, 2012, , 190-204.	1.3	11
50	Cost-energy modelling and profiling of smart domestic grids. International Journal of Grid and Utility Computing, 2016, 7, 257.	0.2	11
51	Software architecture of the EPOCA integrated environment. Lecture Notes in Computer Science, 1994, , 335-352.	1.3	11
52	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
53	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
54	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

#	ARTICLE	IF	CITATIONS
55	A hardware accelerator for data classification within the sensing infrastructure. , 2014, , .		10
56	Correlation of Digital Evidences in Forensic Investigation through Semantic Technologies. , 2017, , .		10
57	Augmenting Surveillance System Capabilities by Exploiting Event Correlation and Distributed Attack Detection. Lecture Notes in Computer Science, 2011, , 191-204.	1.3	10
58	Petri Net Modelling of Physical Vulnerability. Lecture Notes in Computer Science, 2013, , 128-139.	1.3	10
59	Model-Driven Estimation of Distributed Vulnerability in Complex Railway Networks. , 2013, , .		9
60	Trustworthiness Evaluation of Multi-sensor Situation Recognition in Transit Surveillance Scenarios. Lecture Notes in Computer Science, 2013, , 442-456.	1.3	9
61	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
62	Self-optimization of secure web services. Computer Communications, 2008, 31, 4312-4323.	5.1	8
63	SeNsIM-SEC: Security in Heterogeneous Sensor Networks. , 2011, , .		8
64	Manifesto of edge ICT fabric. , 2013, , .		8
65	An OSLC-based environment for system-level functional testing of ERTMS/ETCS controllers. Journal of Systems and Software, 2020, 161, 110478.	4.5	8
66	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
67	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
68	PUF-Enabled Authentication-as-a-Service in Fog-IoT Systems. , 2019, , .		7
69	Mobile Agents for Distributed and Dynamically Balanced Optimization Applications. Lecture Notes in Computer Science, 2001, , 161-170.	1.3	7
70	A Study on Multiformalism Modeling of Critical Infrastructures. Lecture Notes in Computer Science, 2009, , 336-343.	1.3	7
71	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
72	Web Services Composition and Delivery Using a Mobile Agents Based Infrastructure. , 2006, , .		6

#	ARTICLE	IF	CITATIONS
73	An Agent-Based Approach for Distributed Execution of Composite Web Services. , 2008, , .		6
74	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
75	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
76	Semantically driven documents composition in CloSe cloud system. International Journal of Computational Science and Engineering, 2015, 11, 68.	0.5	6
77	Using Bayesian Networks to evaluate the trustworthiness of $\hat{\epsilon}^2$ out of 3 $\hat{\epsilon}^{\text{TM}}$ decision fusion mechanisms in multi-sensor applications. IFAC-PapersOnLine, 2015, 48, 682-687.	0.9	6
78	Interoperable Grid PKIs Among Untrusted Domains: An Architectural Proposal. , 2007, , 39-51.		6
79	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
80	Efficient Reed-Muller Implementation for Fuzzy Extractor Schemes. , 2019, , .		5
81	An abstract reasoning architecture for privacy policies monitoring. Future Generation Computer Systems, 2020, 106, 393-400.	7.5	5
82	$\hat{\mu}$ GRIMOIRE: A Tool for Smart Micro Grids Modelling and Energy Profiling. Open Cybernetics and Systemics Journal, 2016, 10, 263-282.	0.3	5
83	Building a dependable system from a legacy application with CORBA. Journal of Systems Architecture, 2002, 48, 81-98.	4.3	4
84	Multiformalism techniques for critical infrastructure modelling. International Journal of System of Systems Engineering, 2010, 2, 19.	0.5	4
85	A System for Semantic-Based Access Control. , 2013, , .		4
86	Automated design space exploration for FPGA-based heterogeneous interconnects. Design Automation for Embedded Systems, 2014, 18, 157-170.	1.0	4
87	Mobile Agent Programming for Clusters with Parallel Skeletons. Lecture Notes in Computer Science, 2003, , 622-635.	1.3	4
88	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
89	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
90	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

#	ARTICLE	IF	CITATIONS
91	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
92	Performance Analysis of Hybrid OpenMP/MPI N-Body Application. Lecture Notes in Computer Science, 2005, , 12-18.	1.3	3
93	CloSe: A Cloud SaaS for Semantic Document Composition. , 2012, , .		3
94	An integrated lifetime and network quality model of large WSNs. , 2013, , .		3
95	A Compositional Modelling Approach for Large Sensor Networks Design. , 2013, , .		3
96	SeNsiM-SEC: secure sensor networks integration to monitor rail freight transport. International Journal of System of Systems Engineering, 2013, 4, 291.	0.5	3
97	ASP-based optimized mapping in a simulink-to-MPSoC design flow. Journal of Systems Architecture, 2014, 60, 108-118.	4.3	3
98	Model-Based Water Quality Assurance in Ground and Surface Provisioning Systems. , 2015, , .		3
99	A Systematic Approach to the Petri Net Based Specification of Concurrent Systems. , 1997, , 3-20.		3
100	Performance Evaluation of Video Analytics for Surveillance On-Board Trains. Lecture Notes in Computer Science, 2013, , 414-425.	1.3	3
101	Semantic Integration and Correlation of Digital Evidences in Forensic Investigations. Lecture Notes on Data Engineering and Communications Technologies, 2017, , 415-424.	0.7	3
102	Fuzzy Decision Fusion and Multiformalism Modelling in Physical Security Monitoring. Studies in Computational Intelligence, 2016, , 71-100.	0.9	3
103	Automatic and Dynamic Composition of Web Services Using Ontologies. , 2007, , 230-235.		3
104	Formal methods integration for the specification of dependable distributed systems. Journal of Systems Architecture, 1997, 43, 671-685.	4.3	2
105	Revisiting Application-Dependent Test for FPGA Devices. , 2011, , .		2
106	A Cost-Energy Trade-Off Model in Smart Energy Grids. , 2014, , .		2
107	A Semantic Support for Testing Activities of Safety-Critical Embedded Systems. , 2014, , .		2
108	Traffic dynamics and vulnerability in hypercube communication networks. , 2014, , .		2

#	ARTICLE	IF	CITATIONS
109	Paradigms for the parallelization of Branch&Bound algorithms. Lecture Notes in Computer Science, 1996, , 141-150.	1.3	2
110	Design of Policy-Based Security Mechanisms in a Distributed Web Services Architecture. Lecture Notes in Computer Science, 2006, , 454-463.	1.3	2
111	The Modelling Process and Petri Nets: Reasoning on Different Approaches. , 1999, , 37-56.		2
112	Cost-energy modelling and profiling of smart domestic grids. International Journal of Grid and Utility Computing, 2016, 7, 257.	0.2	2
113	Communication Workload Analysis for Symmetrical Concurrent Systems. Journal of Parallel and Distributed Computing, 1994, 20, 224-235.	4.1	1
114	Client - server programs analysis in the EPOCA environment. Distributed Systems Engineering, 1996, 3, 149-161.	0.6	1
115	A method for predictive performance of distributed programs. Simulation Modelling Practice and Theory, 1997, 5, 65-82.	0.3	1
116	Title is missing!. Journal of Supercomputing, 2003, 24, 5-24.	3.6	1
117	Virtual Scan Chains for Online Testing of FPGA-based Embedded Systems. , 2008, , .		1
118	Securing a tiered re-taskable sensing system. , 2010, , .		1
119	Developing Secure Cloud Applications: A Case Study. , 2013, , .		1
120	A compositional modelling approach for live migration in Software Defined Networks. , 2014, , .		1
121	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
122	OFL: A Language for Cloud Orchestration. , 2017, , .		1
123	Multi-agent Collaborative Planning in Smart Environments. Lecture Notes on Data Engineering and Communications Technologies, 2018, , 250-261.	0.7	1
124	A Model Analysis of a Distributed Monitoring System Using a Multi-formalism Approach. Lecture Notes in Computer Science, 2006, , 499-508.	1.3	1
125	A Technique for FPGA Synthesis Driven by Automatic Source Code Analysis and Transformations. Lecture Notes in Computer Science, 2002, , 47-58.	1.3	1
126	Modeling of Railway Logics for Reverse Engineering, Verification and Refactoring. International Journal of Safety and Security Engineering, 2011, 1, 77-94.	1.0	1

#	ARTICLE	IF	CITATIONS
127	Developing Secure Cloud Applications. Scalable Computing, 2014, 15, .	1.0	1
128	A parallel architecture for Digital Radiography. , 1992, , .		0
129	Performance analysis of distributed memory computers with parallel node architecture. Journal of Systems and Software, 1995, 29, 107-120.	4.5	0
130	Reducing Parallel Program Simulation Complexity by Static Analysis. Journal of Supercomputing, 2000, 17, 299-310.	3.6	0
131	TrustedSIM: Towards Unified Mobile Security. , 2013, , .		0
132	Exploring a New Dimension in Code Mobility for Ubiquitous Embedded Systems. , 2013, , .		0
133	A Formal Model for Autonomous Planning in High Performance Systems. Procedia Computer Science, 2016, 98, 503-508.	2.0	0
134	Self Planning in Critical Multi-Agent Systems. Lecture Notes on Data Engineering and Communications Technologies, 2017, , 315-324.	0.7	0
135	A Model-Based Evaluation Methodology for Smart Energy Systems. , 2018, , .		0
136	Time Efficient Dual-Field Unit for Cryptography-Related Processing. International Federation for Information Processing, 2010, , 191-210.	0.4	0
137	Towards Model-Driven Assessment of Clinical Processes. Smart Innovation, Systems and Technologies, 2015, , 121-132.	0.6	0
138	Outperforming Image Segmentation by Exploiting Approximate K-Means Algorithms. Springer Proceedings in Mathematics and Statistics, 2017, , 31-38.	0.2	0
139	An abstraction layer enabling pervasive hardware-reconfigurable systems. International Journal of Embedded Systems, 2018, 10, 366.	0.3	0
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