

Stefano Di Carlo

List of Publications by Year in descending order

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169
papers

1,946
citations

567281

15
h-index

414414

32
g-index

173
all docs

173
docs citations

173
times ranked

1575
citing authors

#	ARTICLE	IF	CITATIONS
1	EXT-TAURUM P2T: An Extended Secure CAN-FD Architecture for Road Vehicles. IEEE Transactions on Device and Materials Reliability, 2022, 22, 98-110.	2.0	1
2	TTTC News. IEEE Design and Test, 2022, 39, 134-136.	1.2	0
3	GAGAM: A Genomic Annotation-Based Enrichment of ATAC-seq Data for Gene Activity Matrix. Lecture Notes in Computer Science, 2022, , 18-32.	1.3	4
4	A Methodology for Co-simulation-Based Optimization of Biofabrication Protocols. Lecture Notes in Computer Science, 2022, , 179-192.	1.3	3
5	Using Analog Scrambling Circuits for Automotive Sensor Integrity and Authenticity. , 2022, , .		0
6	Artificial Resilience in neuromorphic systems. , 2022, , .		1
7	Engineering Minds for Biologists. , 2021, , 79-90.		0
8	Exploring Deep Learning for In-Field Fault Detection in Microprocessors. , 2021, , .		4
9	miRNAs Potentially Involved in Post Lung Transplant-Obliterative Bronchiolitis: The Role of miR-21-5p. Cells, 2021, 10, 688.	4.1	3
10	Guest Editorial: Special Section on Emerging Trends and Computing Paradigms for Testing, Reliability and Security in Future VLSI Systems. IEEE Transactions on Emerging Topics in Computing, 2021, 9, 649-650.	4.6	0
11	Special Session: Operating Systems under test: an overview of the significance of the operating system in the resiliency of the computing continuum. , 2021, , .		1
12	Nets-within-nets for modeling emergent patterns in ontogenetic processes. Computational and Structural Biotechnology Journal, 2021, 19, 5701-5721.	4.1	5
13	Meta-Analysis of cortical inhibitory interneurons markers landscape and their performances in scRNA-seq studies. , 2021, , .		7
14	Guest Editors'™ Introduction: Selected Papers from IEEE VLSI Test Symposium. IEEE Design and Test, 2020, 37, 5-6.	1.2	0
15	Cross-Layer Soft-Error Resilience Analysis of Computing Systems. , 2020, , .		0
16	An On-Line Testing Technique for the Scheduler Memory of a GPGPU. IEEE Access, 2020, 8, 16893-16912.	4.2	9
17	Alternatives to Fault Injections for Early Safety/Security Evaluations. , 2019, , .		5
18	On the in-field test of the GPGPU scheduler memory. , 2019, , .		5

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19	Cost of Sickness Absenteeism during Seasonal Influenza Outbreaks of Medium Intensity among Health Care Workers. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 747.	2.6	29
20	Performance Monitor Counters: Interplay Between Safety and Security in Complex Cyber-Physical Systems. <i>IEEE Transactions on Device and Materials Reliability</i> , 2019, 19, 73-83.	2.0	8
21	Combining Cluster Sampling and ACE analysis to improve fault-injection based reliability evaluation of GPU-based systems. , 2019, , .		1
22	Bayesian models for early cross-layer reliability analysis and design space exploration. , 2019, , .		0
23	“One DB to rule them all” the RING: a Regulatory Interaction Graph combining TFs, genes/proteins, SNPs, diseases and drugs. <i>Database: the Journal of Biological Databases and Curation</i> , 2019, 2019, .	3.0	5
24	The CAFA challenge reports improved protein function prediction and new functional annotations for hundreds of genes through experimental screens. <i>Genome Biology</i> , 2019, 20, 244.	8.8	261
25	SyRA: Early System Reliability Analysis for Cross-Layer Soft Errors Resilience in Memory Arrays of Microprocessor Systems. <i>IEEE Transactions on Computers</i> , 2019, 68, 765-783.	3.4	27
26	ReDO: Cross-Layer Multi-Objective Design-Exploration Framework for Efficient Soft Error Resilient Systems. <i>IEEE Transactions on Computers</i> , 2018, 67, 1462-1477.	3.4	20
27	Modeling biological complexity using Biology System Description Language (BiSDL). , 2018, , .		4
28	Computing of Low Shear Stress-Driven Endothelial Gene Network Involved in Early Stages of Atherosclerotic Process. <i>BioMed Research International</i> , 2018, 2018, 1-12.	1.9	12
29	Modeling antibiotic resistance in the microbiota using multi-level Petri Nets. <i>BMC Systems Biology</i> , 2018, 12, 108.	3.0	8
30	Computational Tools for Applying Multi-level Models to Synthetic Biology. , 2018, , 95-112.		3
31	Shielding Performance Monitor Counters: a double edged weapon for safety and security. , 2018, , .		1
32	Securing bitstream integrity, confidentiality and authenticity in reconfigurable mobile heterogeneous systems. , 2018, , .		4
33	Trading-off reliability and performance in FPGA-based reconfigurable heterogeneous systems. , 2018, , .		5
34	Special session: How approximate computing impacts verification, test and reliability. , 2018, , .		1
35	Multi-faceted microarchitecture level reliability characterization for NVIDIA and AMD GPUs. , 2018, , .		13
36	SIFI: AMD southern islands GPU microarchitectural level fault injector. , 2017, , .		16

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37	Multi-level and hybrid modelling approaches for systems biology. Computational and Structural Biotechnology Journal, 2017, 15, 396-402.	4.1	51
38	In-silico cardiac aging regulatory model including microRNA post-transcriptional regulation. Methods, 2017, 124, 57-68.	3.8	4
39	Innovative practices session 9C DFT and data for diagnostics. , 2017, , .		0
40	Microarchitecture level reliability comparison of modern GPU designs: First findings. , 2017, , .		4
41	RT Level vs. Microarchitecture-Level Reliability Assessment: Case Study on ARM(R) Cortex(R)-A9 CPU. , 2017, , .		20
42	Innovative practices session 5C automotive test solutions. , 2017, , .		0
43	Using multi-level Petri nets models to simulate microbiota resistance to antibiotics. , 2017, , .		6
44	RILF-2: Toward the next generation reliability information interchange format. , 2016, , .		2
45	Cross-layer system reliability assessment framework for hardware faults. , 2016, , .		20
46	A computationally inferred regulatory heart aging model including post-transcriptional regulations. , 2016, , .		1
47	An expanded evaluation of protein function prediction methods shows an improvement in accuracy. Genome Biology, 2016, 17, 184.	8.8	308
48	SIERRAâ€”Simulation environment for memory redundancy algorithms. Simulation Modelling Practice and Theory, 2016, 69, 14-30.	3.8	2
49	CyTRANSFINDER: a Cytoscape 3.3 plugin for three-component (TF, gene, miRNA) signal transduction pathway construction. BMC Bioinformatics, 2016, 17, 157.	2.6	14
50	FishAPP: A mobile App to detect fish falsification through image processing and machine learning techniques. , 2016, , .		18
51	Using Nets-Within-Nets for Modeling Differentiating Cells in the Epigenetic Landscape. Lecture Notes in Computer Science, 2016, , 315-321.	1.3	6
52	Identification of miRNAs Potentially Involved in Bronchiolitis Obliterans Syndrome: A Computational Study. PLoS ONE, 2016, 11, e0161771.	2.5	6
53	LSC Abstract â€” Identification of pathogenic micro RNA (miR) in BOS: A system biology approach. , 2016, , .		0
54	SSDExplorer: A Virtual Platform for Performance/Reliability-Oriented Fine-Grained Design Space Exploration of Solid State Drives. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2015, 34, 1627-1638.	2.7	20

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55	A cloud-based approach for Gene Regulatory Networks dynamics simulations. , 2015, , .		2
56	Cross-layer reliability evaluation, moving from the hardware architecture to the system level: A CLERECO EU project overview. Microprocessors and Microsystems, 2015, 39, 1204-1214.	2.8	14
57	Performance and Reliability Analysis of Cross-Layer Optimizations of NAND Flash Controllers. Transactions on Embedded Computing Systems, 2015, 14, 1-24.	2.9	10
58	SATTA. ACM Transactions on Reconfigurable Technology and Systems, 2015, 8, 1-22.	2.5	12
59	A portable open-source controller for safe Dynamic Partial Reconfiguration on Xilinx FPGAs. , 2015, , .		7
60	Power-aware voltage tuning for STT-MRAM reliability. , 2015, , .		10
61	A Bayesian model for system level reliability estimation. , 2015, , .		1
62	Bayesian network early reliability evaluation analysis for both permanent and transient faults. , 2015, , .		2
63	SA-FEMIP: A Self-Adaptive Features Extractor and Matcher IP-Core Based on Partially Reconfigurable FPGAs for Space Applications. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2015, 23, 2198-2208.	3.1	9
64	A 3D Voxel Neighborhood Classification Approach within a Multiparametric MRI Classifier for Prostate Cancer Detection. Lecture Notes in Computer Science, 2015, , 231-239.	1.3	1
65	A Computational Pipeline to Identify New Potential Regulatory Motifs in Melanoma Progression. Communications in Computer and Information Science, 2015, , 181-194.	0.5	0
66	System biology (SB) allows the identification of pathogenic micro RNA (miR) in BOS. , 2015, , .		0
67	Breathomics can discriminate between anti IgE-treated and non-treated severe asthma adults. , 2015, , .		0
68	ReNE: A Cytoscape Plugin for Regulatory Network Enhancement. PLoS ONE, 2014, 9, e115585.	2.5	15
69	FLARES. Transactions on Architecture and Code Optimization, 2014, 11, 1-25.	2.0	8
70	Integration of STT-MRAM model into CACTI simulator. , 2014, , .		12
71	FunMod: A Cytoscape Plugin for Identifying Functional Modules in Undirected Protein-Protein Networks. Genomics, Proteomics and Bioinformatics, 2014, 12, 178-186.	6.9	6
72	Cross-Layer Early Reliability Evaluation for the Computing cOntinuum. , 2014, , .		1

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73	SSDEXplorer: A virtual platform for fine-grained design space exploration of Solid State Drives. , 2014, , .		4
74	A novel algorithm and hardware architecture for fast video-based shape reconstruction of space debris. Eurasip Journal on Advances in Signal Processing, 2014, 2014, .	1.7	1
75	Using Boolean networks to model post-transcriptional regulation in gene regulatory networks. Journal of Computational Science, 2014, 5, 332-344.	2.9	22
76	Cross-layer early reliability evaluation: Challenges and promises. , 2014, , .		4
77	On Enhancing Fault Injection's Capabilities and Performances for Safety Critical Systems. , 2014, , .		4
78	A novel methodology to increase fault tolerance in autonomous FPGA-based systems. , 2014, , .		17
79	A Functional Approach for Testing the Reorder Buffer Memory. Journal of Electronic Testing: Theory and Applications (JETTA), 2014, 30, 469-481.	1.2	6
80	An extended gene protein/products boolean network model including post-transcriptional regulation. Theoretical Biology and Medical Modelling, 2014, 11, S5.	2.1	9
81	A software-based self test of CUDA Fermi GPUs. , 2013, , .		30
82	Design and optimization of adaptable BCH codecs for NAND flash memories. Microprocessors and Microsystems, 2013, 37, 407-419.	2.8	11
83	Increasing the robustness of CUDA Fermi GPU-based systems. , 2013, , .		7
84	A systematic analysis of a mi-RNA inter-pathway regulatory motif. Journal of Clinical Bioinformatics, 2013, 3, 20.	1.2	11
85	AID: An adaptive image denoising FPGA-based IP-core for real-time applications. , 2013, , .		7
86	FEMIP: A high performance FPGA-based features extractor & matcher for space applications. , 2013, , .		4
87	Ef ³ S: An evaluation framework for flash-based systems. , 2013, , .		1
88	ZipStream: Improving dependability in dynamic partial reconfiguration. , 2013, , .		1
89	On the on-line functional test of the Reorder Buffer memory in superscalar processors. , 2013, , .		4
90	Fault mitigation strategies for CUDA GPUs. , 2013, , .		14

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91	SAFE: A self adaptive frame enhancer FPGA-based IP-core for real-time space applications. , 2013, , .		0
92	A combined approach for genome wide protein function annotation/prediction. Proteome Science, 2013, 11, S1.	1.7	22
93	Reducing the Complexity of Complex Gene Coexpression Networks by Coupling Multiweighted Labeling with Topological Analysis. BioMed Research International, 2013, 2013, 1-9.	1.9	2
94	A cross-layer approach for new reliability-performance trade-offs in MLC NAND flash memories. , 2012, , .		17
95	Using genome wide data for protein function prediction by exploiting gene ontology relationships. , 2012, , .		5
96	Statistical Reliability Estimation of Microprocessor-Based Systems. IEEE Transactions on Computers, 2012, 61, 1521-1534.	3.4	36
97	NBTI mitigation by Dynamic Partial Reconfiguration. , 2012, , .		1
98	FPGA-Based Remote-Code Integrity Verification of Programs in Distributed Embedded Systems. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2012, 42, 187-200.	2.9	13
99	Software-Based Self-Test for Reliable Applications in Railway Systems. , 2012, , 198-220.		4
100	An area-efficient 2-D convolution implementation on FPGA for space applications. , 2011, , .		16
101	MarciaTesta: An Automatic Generator of Test Programs for Microprocessors' Data Caches. , 2011, , .		3
102	A cDNA Microarray Gene Expression Data Classifier for Clinical Diagnostics Based on Graph Theory. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2011, 8, 577-591.	3.0	12
103	Validation & Verification of an EDA automated synthesis tool. , 2011, , .		0
104	A unifying formalism to support automated synthesis of SBSTs for embedded caches. , 2011, , .		2
105	Software-Based Self-Test of Set-Associative Cache Memories. IEEE Transactions on Computers, 2011, 60, 1030-1044.	3.4	42
106	Efficient multi-level fault simulation of HW/SW systems for structural faults. Science China Information Sciences, 2011, 54, 1784-1796.	4.3	8
107	Building gene expression profile classifiers with a simple and efficient rejection option in R. BMC Bioinformatics, 2011, 12, S3.	2.6	8
108	Increasing pattern recognition accuracy for chemical sensing by evolutionary based drift compensation. Pattern Recognition Letters, 2011, 32, 1594-1603.	4.2	50

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109	Covariance Matrix Adaptation Evolutionary Strategy for Drift Correction of Electronic Nose Data. , 2011, , .		0
110	Genetic Defect Based March Test Generation for SRAM. Lecture Notes in Computer Science, 2011, , 141-150.	1.3	1
111	System reliability evaluation using concurrent multi-level simulation of structural faults. , 2010, , .		0
112	Defective Behaviour of an 8T SRAM Cell with Open Defects. , 2010, , .		2
113	GPU acceleration for statistical gene classification. , 2010, , .		9
114	Efficient Simulation of Structural Faults for the Reliability Evaluation at System-Level. , 2010, , .		6
115	Exploiting Evolution for an Adaptive Drift-Robust Classifier in Chemical Sensing. Lecture Notes in Computer Science, 2010, , 412-421.	1.3	4
116	Models in Memory Testing. Frontiers in Electronic Testing, 2010, , 157-185.	0.3	9
117	A FPGA-Based Reconfigurable Software Architecture for Highly Dependable Systems. , 2009, , .		10
118	System Level Testing via TLM 2.0 Debug Transport Interface. , 2009, , .		1
119	Test exploration and validation using transaction level models. , 2009, , .		4
120	Gene expression reliability estimation through cluster-based analysis. , 2009, , . </title> </titles> <publication_date> <month>05</month> </year>2009</year> </publication_date> </pages> </first_page>3</first_page> </last_page>3</last_page> </pages> </publisher_item> </item_number item_number_type='sequence-number'>5167501</item_number> </publisher_item> </doi_data> </doi>10.1109/EMT.2009.45</doi> </resource>http://ieeexplore.ieee.org/lp		0
121	Gene expression reliability estimation through cluster-based analysis. , 2009, , . </title> </titles> <publication_date> <month>05</month> </year>2009</year> </publication_date> </pages> </first_page>3</first_page> </last_page>3</last_page> </pages> </publisher_item> </item_number item_number_type='sequence-number'>5167501</item_number> </publisher_item> </doi_data> </doi>10.1109/EMT.2009.45</doi> </resource>http://ieeexplore.ieee.org/lp	1.0	2
122	Gene expression classifiers and out-of-class samples detection. , 2009, , .		0
123	Test infrastructures evaluation at transaction level. , 2009, , .		0
124	A Low-Cost FPGA-Based Test and Diagnosis Architecture for SRAMs. , 2009, , .		5
125	FLARE: A design environment for FLASH-based space applications. , 2009, , .		4
126	March Test Generation Revealed. IEEE Transactions on Computers, 2008, 57, 1704-1713.	3.4	17

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127	IEEE Standard 1500 Compliance Verification for Embedded Cores. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2008, 16, 397-407.	3.1	14
128	Using ER models for microprocessor functional test coverage evaluation. , 2008, , .		0
129	Applying March Tests to K-Way Set-Associative Cache Memories. , 2008, , .		10
130	On-Line Instruction-Checking in Pipelined Microprocessors. , 2008, , .		6
131	Differential gene expression graphs: A data structure for classification in DNA microarrays. , 2008, , .		3
132	Influence of Parasitic Capacitance Variations on 65 nm and 32 nm Predictive Technology Model SRAM Core-Cells. , 2008, , .		8
133	Automating defects simulation and fault modeling for SRAMs. , 2008, , .		3
134	A graph-based representation of Gene Expression profiles in DNA microarrays. , 2008, , .		5
135	"Plug & Test" at System Level via Testable TLM Primitives. , 2008, , .		10
136	Analysis of System-Failure Rate Caused by Soft-Errors using a UML-Based Systematic Methodology in an SoC. , 2007, , .		2
137	March AB, a state-of-the-art march test for realistic static linked faults and dynamic faults in SRAMs. IET Computers and Digital Techniques, 2007, 1, 237.	1.2	15
138	Automating the IEEE std. 1500 compliance verification for embedded cores. , 2007, , .		1
139	A Functional Verification based Fault Injection Environment. , 2007, , .		20
140	ATPG for Dynamic Burn-In Test in Full-Scan Circuits. Proceedings of the Asian Test Symposium, 2006, , .	0.0	18
141	Automatic March tests generation for multi-port SRAMs. , 2006, , .		4
142	Memory Fault Simulator for Static-Linked Faults. Proceedings of the Asian Test Symposium, 2006, , .	0.0	4
143	A tool for teaching memory testing based on BIST. International Biennial Baltic Electronics Conference, 2006, , .	0.0	0
144	Automatic March Tests Generations for Static Linked Faults in SRAMs. , 2006, , .		7

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145	Programmable built-in self-testing of embedded RAM clusters in system-on-chip architectures. , 2003, 41, 90-97.		17
146	A hierarchical infrastructure for SoC test management. IEEE Design and Test of Computers, 2003, 20, 32-39.	1.0	8
147	Online self-repair of FIR filters. IEEE Design and Test of Computers, 2003, 20, 50-57.	1.0	13
148	A programmable BIST architecture for clusters of multiple-port SRAMs. , 0, , .		20
149	On integrating a proprietary and a commercial architecture for optimal BIST performances in SoCs. , 0, , .		0
150	An effective distributed BIST architecture for RAMs. , 0, , .		23
151	HD/sup 2/BIST: a hierarchical framework for BIST scheduling, data patterns delivering and diagnosis in SoCs. , 0, , .		21
152	Memory read faults: taxonomy and automatic test generation. , 0, , .		1
153	Control-flow checking via regular expressions. , 0, , .		31
154	Validation of a software dependability tool via fault injection experiments. , 0, , .		8
155	SEU effect analysis in a open-source router via a distributed fault injection environment. , 0, , .		2
156	An optimal algorithm for the automatic generation of March tests. , 0, , .		7
157	Automated synthesis of SEU tolerant architectures from OO descriptions. , 0, , .		1
158	Specification and design of a new memory fault simulator. , 0, , .		23
159	Static analysis of SEU effects on software applications. , 0, , .		17
160	Software dependability techniques validated via fault injection experiments. , 0, , .		1
161	FAUST: fault-injection script-based tool. , 0, , .		3
162	A watchdog processor to detect data and control flow errors. , 0, , .		37

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163	Data criticality estimation in software applications. , 0, , .		19
164	Digital, Memory and Mixed-Signal Test Engineering Education: Five Centres of Competence in Europe. , 0, , .		0
165	Automatic March Tests Generation for Static and Dynamic Faults in SRAMs. , 0, , .		21
166	A 22n March Test for Realistic Static Linked Faults in SRAMs. , 0, , .		2
167	A Unique March Test Algorithm for the Wide Spread of Realistic Memory Faults in SRAMs. , 0, , .		1
168	Single-Event Upset Analysis and Protection in High Speed Circuits. , 0, , .		7
169	Test Technology Newsletter. Journal of Electronic Testing: Theory and Applications (JETTA), 0, , 1.	1.2	0