

Antonino Tumeo

List of Publications by Year in descending order

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Version: 2024-02-01

101
papers

932
citations

840776

11
h-index

752698

20
g-index

106
all docs

106
docs citations

106
times ranked

582
citing authors

#	ARTICLE	IF	CITATIONS
1	Ant Colony Heuristic for Mapping and Scheduling Tasks and Communications on Heterogeneous Embedded Systems. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2010, 29, 911-924.	2.7	132
2	The future is big graphs. Communications of the ACM, 2021, 64, 62-71.	4.5	56
3	Invited: Bambu: an Open-Source Research Framework for the High-Level Synthesis of Complex Applications. , 2021, , .		33
4	Efficient pattern matching on GPUs for intrusion detection systems. , 2010, , .		32
5	Aho-Corasick String Matching on Shared and Distributed-Memory Parallel Architectures. IEEE Transactions on Parallel and Distributed Systems, 2012, 23, 436-443.	5.6	32
6	A Pipelined Fast 2D-DCT Accelerator for FPGA-based SoCs. , 2007, , .		31
7	Accelerating DNA analysis applications on GPU clusters. , 2010, , .		29
8	Approximate weighted matching on emerging manycore and multithreaded architectures. International Journal of High Performance Computing Applications, 2012, 26, 413-430.	3.7	25
9	Improving evolutionary exploration to area-time optimization of FPGA designs. Journal of Systems Architecture, 2008, 54, 1046-1057.	4.3	21
10	Scaling Irregular Applications through Data Aggregation and Software Multithreading. , 2014, , .		19
11	Scalable static and dynamic community detection using Grappolo. , 2017, , .		19
12	Ant colony optimization for mapping and scheduling in heterogeneous multiprocessor systems. , 2008, , .		18
13	Mapping and scheduling of parallel C applications with Ant Colony Optimization onto heterogeneous reconfigurable MPSoCs. , 2010, , .		16
14	In-Memory Graph Databases for Web-Scale Data. Computer, 2015, 48, 24-35.	1.1	16
15	Community Detection on the GPU. , 2017, , .		16
16	Power/Performance Trade-Offs of Small Batched LU Based Solvers on GPUs. Lecture Notes in Computer Science, 2013, , 813-825.	1.3	16
17	A design kit for a fully working shared memory multiprocessor on FPGA. , 2007, , .		15
18	An Interrupt Controller for FPGA-based Multiprocessors. , 2007, , .		15

#	ARTICLE	IF	CITATIONS
19	Irregular Applications: From Architectures to Algorithms [Guest editors' introduction]. Computer, 2015, 48, 14-16.	1.1	15
20	A dual-priority real-time multiprocessor system on FPGA for automotive applications. , 2008, , .		14
21	Speeding-Up Expensive Evaluations in High-Level Synthesis Using Solution Modeling and Fitness Inheritance. Adaptation, Learning, and Optimization, 2010, , 701-723.	0.6	14
22	An Evolutionary Approach to Area-Time Optimization of FPGA designs. , 2007, , .		13
23	Scaling Semantic Graph Databases in Size and Performance. IEEE Micro, 2014, 34, 16-26.	1.8	13
24	HW/SW methodologies for synchronization in FPGA multiprocessors. , 2009, , .		12
25	Prototyping pipelined applications on a heterogeneous FPGA multiprocessor virtual platform. , 2009, , .		12
26	OpenCGRA: Democratizing Coarse-Grained Reconfigurable Arrays. , 2021, , .		12
27	ARENA: Asynchronous Reconfigurable Accelerator Ring to Enable Data-Centric Parallel Computing. IEEE Transactions on Parallel and Distributed Systems, 2021, 32, 2880-2892.	5.6	11
28	Svelto: High-Level Synthesis of Multi-Threaded Accelerators for Graph Analytics. IEEE Transactions on Computers, 2022, 71, 520-533.	3.4	11
29	Experiences with String Matching on the Fermi Architecture. Lecture Notes in Computer Science, 2011, , 26-37.	1.3	11
30	Ant Colony Optimization for mapping, scheduling and placing in reconfigurable systems. , 2013, , .		10
31	Efficient sparse matrix-matrix multiplication on heterogeneous high performance systems. , 2010, , .		9
32	EXAGRAPH: Graph and combinatorial methods for enabling exascale applications. International Journal of High Performance Computing Applications, 2021, 35, 553-571.	3.7	9
33	Hardware DWT accelerator for MultiProcessor System-on-Chip on FPGA. , 2006, , .		8
34	Automated Generation of Integrated Digital and Spiking Neuromorphic Machine Learning Accelerators. , 2021, , .		8
35	Fitness inheritance in evolutionary and multi-objective high-level synthesis. , 2007, , .		7
36	Automatic Parallelization of Sequential Specifications for Symmetric MPSoCs. , 2007, , 179-192.		7

#	ARTICLE	IF	CITATIONS
37	An Internal Partial Dynamic Reconfiguration Implementation of the JPEG Encoder for Low-Cost FPGAsb. , 2007, , .		7
38	Lightweight DMA management mechanisms for multiprocessors on FPGA. , 2008, , .		7
39	Fast and Accurate Simulation of the Cray XMT Multithreaded Supercomputer. IEEE Transactions on Parallel and Distributed Systems, 2012, 23, 2266-2279.	5.6	7
40	Inter-procedural resource sharing in High Level Synthesis through function proxies. , 2015, , .		7
41	Evolutionary algorithms for the mapping of pipelined applications onto heterogeneous embedded systems. , 2009, , .		6
42	High-level synthesis of memory bound and irregular parallel applications with Bambu. , 2014, , .		6
43	Efficient synthesis of graph methods. , 2016, , .		6
44	Exploring DataVortex Systems for Irregular Applications. , 2017, , .		6
45	A Self-Reconfigurable Implementation of the JPEG Encoder. , 2007, , .		5
46	A Dual-Priority Real-Time Multiprocessor System on FPGA for Automotive Applications. , 2008, , .		5
47	Performance modeling of parallel applications on MPSoCs. , 2009, , .		5
48	A multiprocessor self-reconfigurable JPEG2000 encoder. , 2009, , .		5
49	Performance estimation for task graphs combining sequential path profiling and control dependence regions. , 2009, , .		5
50	A reconfigurable multiprocessor architecture for a reliable face recognition implementation. , 2010, , .		5
51	Efficient Sorting on the Tiler Manycore Architecture. , 2012, , .		5
52	A Bandwidth-Optimized Multi-core Architecture for Irregular Applications. , 2012, , .		5
53	Designing Next-Generation Massively Multithreaded Architectures for Irregular Applications. Computer, 2012, 45, 53-61.	1.1	5
54	Accelerating subsurface transport simulation on heterogeneous clusters. , 2013, , .		5

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55	Optimizing Approximate Weighted Matching on Nvidia Kepler K40. , 2015, , .		5
56	High level synthesis of RDF queries for graph analytics. , 2015, , .		5
57	Exploring performance and energy tradeoffs for irregular applications: A case study on the Tiler many-core architecture. Journal of Parallel and Distributed Computing, 2017, 104, 234-251.	4.1	5
58	Mapping pipelined applications onto heterogeneous embedded systems. , 2009, , .		5
59	SODA. , 2020, , .		5
60	Modeling the Impact of Silicon Photonics on Graph Analytics. , 2016, , .		4
61	Enabling the high level synthesis of data analytics accelerators. , 2016, , .		4
62	Exploring Efficient Hardware Support for Applications with Irregular Memory Patterns on Multinode Manycore Architectures. IEEE Transactions on Parallel and Distributed Systems, 2017, 28, 1635-1648.	5.6	4
63	Towards Automatic and Agile AI/ML Accelerator Design with End-to-End Synthesis. , 2021, , .		4
64	Contention Modeling for Multithreaded Distributed Shared Memory Machines: The Cray XMT. , 2011, , .		3
65	Toward a data scalable solution for facilitating discovery of science resources. Parallel Computing, 2014, 40, 682-696.	2.1	3
66	Optimizing irregular applications for energy and performance on the Tiler many-core architecture. , 2015, , .		3
67	Exploring Data Vortex Network Architectures. , 2016, , .		3
68	DynPaC: Coarse-Grained, Dynamic, and Partially Reconfigurable Array for Streaming Applications. , 2021, , .		3
69	ASAP. , 2022, , .		3
70	Accelerating semantic graph databases on commodity clusters. , 2013, , .		2
71	Toward a data scalable solution for facilitating discovery of scientific data resources. , 2013, , .		2
72	An adaptive Memory Interface Controller for improving bandwidth utilization of hybrid and reconfigurable systems. , 2014, , .		2

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73	Function Proxies for Improved Resource Sharing in High Level Synthesis. , 2015, , .		2
74	Power and performance trade-offs for Space Time Adaptive Processing. , 2015, , .		2
75	Assessing Advanced Technology in CENATE. , 2016, , .		2
76	Invited: Software Defined Accelerators From Learning Tools Environment. , 2020, , .		2
77	Energy characterization of graph workloads. Sustainable Computing: Informatics and Systems, 2021, 29, 100465.	2.2	2
78	HAM: Hotspot-Aware Manager for Improving Communications With 3D-Stacked Memory. IEEE Transactions on Computers, 2021, 70, 833-848.	3.4	2
79	Software defined architectures for data analytics. , 2019, , .		2
80	DRIPS: Dynamic Rebalancing of Pipelined Streaming Applications on CGRAs. , 2022, , .		2
81	A Compact Transactional Memory Multiprocessor System on FPGA. , 2010, , .		1
82	Irregular applications. , 2011, , .		1
83	Composing Data Parallel Code for a SPARQL Graph Engine. , 2013, , .		1
84	Exploring hardware support for scaling irregular applications on multi-node multi-core architectures. , 2013, , .		1
85	Exploring Manycore Multinode Systems for Irregular Applications with FPGA Prototyping. , 2013, , .		1
86	A Flexible CUDA LU-Based Solver for Small, Batched Linear Systems. , 2014, , 87-101.		1
87	Scaling RDF Triple Stores in Size and Performance. Handbook of Statistics, 2015, 33, 339-362.	0.6	1
88	Towards efficient execution of irregular applications. , 2011, , .		0
89	Second Workshop on Irregular Applications: Architectures & Algorithms - IA ³ 2012. , 2012, , .		0
90	A High Performance Computing Network and System Simulator for the Power Grid: NGNS ² . , 2012, , .		0

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91	Hardware Architectures for Data-Intensive Computing Problems: A Case Study for String Matching. , 0, 24-47.		0
92	YAPPA: A compiler-based parallelization framework for irregular applications on MPSoCs. , 2013, , .		0
93	Exploring manycore multinode systems for irregular applications with FPGA prototyping. , 2013, , .		0
94	Prototyping hardware support for irregular applications. , 2013, , .		0
95	High-Performance, Distributed Dictionary Encoding of RDF Datasets. , 2015, , .		0
96	A dynamically scheduled architecture for the synthesis of graph methods. , 2016, , .		0
97	A Dynamically Scheduled Architecture for the Synthesis of Graph Database Queries. , 2016, , .		0
98	Pushing the Limits of Irregular Access Patterns on Emerging Network Architecture: A Case Study. , 2017, , .		0
99	Introduction to GraML Workshop. , 2017, , .		0
100	Guest Editorial: Special Issue on Computing Frontiers. International Journal of Parallel Programming, 2018, 46, 333-335.	1.5	0
101	Advert: An Asynchronous Runtime for Fine-Grained Network Systems. , 2019, , .		0