Gabriele Mencagli

List of Publications by Year
in descending order

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Version: 2024-02-01

67 papers	673 citations	759233 12 h-index	794594 19 g-index
68 all docs	68 docs citations	68 times ranked	380 citing authors

#	Article	IF	Citations
1	Towards Parallel Data Stream Processing on System-on-Chip CPU+GPU Devices. , 2022, , .		2
2	Latencyâ€aware adaptive microâ€batching techniques for streamed data compression on graphics processing units. Concurrency Computation Practice and Experience, 2021, 33, e5786.	2.2	7
3	Algorithmic Skeletons and Parallel Design Patterns in Mainstream Parallel Programming. International Journal of Parallel Programming, 2021, 49, 177-198.	1.5	5
4	Novel parallel processing techniques for <scp>IoT</scp>â€based machine learning applications. Concurrency Computation Practice and Experience, 2021, 33, e6255.	2.2	0
5	Towards On-the-fly Self-Adaptation of Stream Parallel Patterns. , 2021, , .		2
6	WindFlow: High-Speed Continuous Stream Processing With Parallel Building Blocks. IEEE Transactions on Parallel and Distributed Systems, 2021, 32, 2748-2763.	5.6	14
7	The NAS Parallel Benchmarks for evaluating C++ parallel programming frameworks on shared-memory architectures. Future Generation Computer Systems, 2021, 125, 743-757.	7.5	14
8	Lachesis. , 2021, , .		6
9	Challenging the abstraction penalty in parallel patterns libraries. Journal of Supercomputing, 2020, 76, 5139-5159.	3.6	4
10	DSPBench: A Suite of Benchmark Applications for Distributed Data Stream Processing Systems. IEEE Access, 2020, 8, 222900-222917.	4.2	19
11	Improving the Performance of Actors on Multi-cores with Parallel Patterns. International Journal of Parallel Programming, 2020, 48, 692-712.	1.5	3
12	Parallel Stream Processing with MPI for Video Analytics and Data Visualization. Communications in Computer and Information Science, 2020, , 102-116.	0.5	2
13	High-throughput stream processing with actors. , 2020, , .		0
14	Powerâ€aware pipelining with automatic concurrency control. Concurrency Computation Practice and Experience, 2019, 31, e4652.	2.2	7
15	Stream Processing on Multi-cores with GPUs: Parallel Programming Models' Challenges. , 2019, , .		6
16	Raising the Parallel Abstraction Level for Streaming Analytics Applications. IEEE Access, 2019, 7, 131944-131961.	4.2	11
17	Accelerating Actor-Based Applications with Parallel Patterns. , 2019, , .		4
18	GASSER: An Auto-Tunable System for General Sliding-Window Streaming Operators on GPUs. IEEE Access, 2019, 7, 48753-48769.	4.2	11

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19	On dynamic memory allocation in sliding-window parallel patterns for streaming analytics. Journal of Supercomputing, 2019, 75, 4114-4131.	3.6	1
20	The RePhrase Extended Pattern Set for Data Intensive Parallel Computing. International Journal of Parallel Programming, 2019, 47, 74-93.	1.5	2
21	A dataflow runtime environment and static scheduler for edge, fog and in-situ computing. International Journal of Grid and Utility Computing, 2019, 10, 235.	0.2	0
22	Data stream processing via code annotations. Journal of Supercomputing, 2018, 74, 5659-5673.	3.6	8
23	The home-forwarding mechanism to reduce the cache coherence overhead in next-generation CMPs. Future Generation Computer Systems, 2018, 82, 493-509.	7.5	3
24	State access patterns in stream parallel computations. International Journal of High Performance Computing Applications, 2018, 32, 807-818.	3.7	5
25	Elastic-PPQ: A two-level autonomic system for spatial preference query processing over dynamic data streams. Future Generation Computer Systems, 2018, 79, 862-877.	7.5	25
26	Harnessing sliding-window execution semantics for parallel stream processing. Journal of Parallel and Distributed Computing, 2018, 116, 74-88.	4.1	10
27	Reducing Message Latency and CPU Utilization in the CAF Actor Framework. , 2018, , .		2
28	SpinStreams. , 2018, , .		9
29	Efficient NAS Benchmark Kernels with C++ Parallel Programming. , 2018, , .		20
30	Container-Based Support for Autonomic Data Stream Processing Through the Fog. Lecture Notes in Computer Science, 2018, , 17-28.	1.3	12
31	Parallel Patterns for Window-Based Stateful Operators on Data Streams: An Algorithmic Skeleton Approach. International Journal of Parallel Programming, 2017, 45, 382-401.	1.5	24
32	Parallel Continuous Preference Queries over Out-of-Order and Bursty Data Streams. IEEE Transactions on Parallel and Distributed Systems, 2017, 28, 2608-2624.	5.6	12
33	Elastic Scaling for Distributed Latency-Sensitive Data Stream Operators. , 2017, , .		22
34	Bringing Parallel Patterns Out of the Corner. Transactions on Architecture and Code Optimization, 2017, 14, 1-26.	2.0	18
35	Proactive elasticity and energy awareness in data stream processing. Journal of Systems and Software, 2017, 127, 302-319.	4.5	65
36	P 3 ARSEC. , 2017, , .		8

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37	Continuous skyline queries on multicore architectures. Concurrency Computation Practice and Experience, 2016, 28, 3503-3522.	2.2	10
38	Adaptive model predictive control of autonomic distributed parallel computations with variable horizons and switching costs. Concurrency Computation Practice and Experience, 2016, 28, 2187-2212.	2.2	13
39	A divide-and-conquer parallel pattern implementation for multicores. , 2016, , .		11
40	Efficient Dynamic Memory Allocation in Data Stream Processing Programs. , 2016, , .		2
41	A Game-Theoretic Approach for Elastic Distributed Data Stream Processing. ACM Transactions on Autonomous and Adaptive Systems, 2016, 11, 1-34.	0.8	19
42	Keep calm and react with foresight. , 2016, , .		40
43	Keep calm and react with foresight. ACM SIGPLAN Notices, 2016, 51, 1-12.	0.2	26
44	Parallelizing High-Frequency Trading Applications by Using C++11 Attributes. , 2015, , .		6
45	A Multicore Parallelization of Continuous Skyline Queries on Data Streams. Lecture Notes in Computer Science, 2015, , 402-413.	1.3	8
46	Towards a systematic approach to the dynamic adaptation of structured parallel computations using model predictive control. Cluster Computing, 2014, 17, 1443-1463.	5.0	9
47	Performance analysis and structured parallelisation of the spaceâ€“time adaptive processing computational kernel on multi-core architectures. International Journal of Parallel, Emergent and Distributed Systems, 2014, 29, 460-498.	1.0	0
48	A Cooperative Predictive Control Approach to Improve the Reconfiguration Stability of Adaptive Distributed Parallel Applications. ACM Transactions on Autonomous and Adaptive Systems, 2014, 9, 1-27.	0.8	21
49	Run-time mechanisms for fine-grained parallelism on network processors: The TILEPro64 experience. , 2014, , .		4
50	A High-Throughput and Low-Latency Parallelization of Window-Based Stream Joins on Multicores. , 2014, , .		5
51	Optimizing message-passing on multicore architectures using hardware multi-threading. , 2014, , .		10
52	A Lightweight Run-Time Support for Fast Dense Linear Algebra on Multi-Core. , 2014, , .		5
53	Control-theoretic adaptation strategies for autonomic reconfigurable parallel applications on cloud environments. , 2013, , .		8
54	Analysis of control-theoretic predictive strategies for the adaptation of distributed parallel computations. , 2013, , .		2

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55	Reconfiguration Stability of Adaptive Distributed Parallel Applications through a Cooperative Predictive Control Approach. Lecture Notes in Computer Science, 2013, , 329-340.	1.3	5
56	Evaluation of Architectural Supports for Fine-Grained Synchronization Mechanisms. , 2013, , .		5
57	Consistent Rollback Protocols for Autonomic ASSISTANT Applications. Lecture Notes in Computer Science, 2012, , 139-148.	1.3	2
58	QoS-control of Structured Parallel Computations: A Predictive Control Approach. , 2011, , .		9
59	Consistent reconfiguration protocols for adaptive high-performance applications. , 2011, , .		5
60	Resource discovery support for time-critical adaptive applications. , 2010, , .		3
61	Analyzing Memory Requirements for Pervasive Grid Applications. , 2010, , .		9
62	Expressing Adaptivity and Context Awareness in the ASSISTANT Programming Model. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2010, , 32-47.	0.3	12
63	A cost model for autonomic reconfigurations in high-performance pervasive applications. , 2010, , .		8
64	Next generation grids and wireless communication networks: towards a novel integrated approach. Wireless Communications and Mobile Computing, 2009, 9, 445-467.	1.2	28
65	Adaptivity in Risk and Emergency Management Applications on Pervasive Grids. , 2009, , .		10
66	Online and transparent self-adaptation of stream parallel patterns. Computing (Vienna/New York), 0, , 1.	4.8	1
67	An Approach to Mobile Grid Platforms for the Development and Support of Complex Ubiquitous Applications. , 0, , 617-633.		0