Alessandro Pellegrini

List of Publications by Year
in descending order

82	546	1307594	1199594
82 papers	**546** citations	**7** h-index	**12** g-index
83 all docs	**83** docs citations	**83** times ranked	**222** citing authors

#	Article	IF	Citations
1	Towards Symmetric Multi-threaded Optimistic Simulation Kernels. , 2012, , .		40
2	Autonomic State Management for Optimistic Simulation Platforms. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 1560-1569.	5.6	27
3	Load sharing for optimistic parallel simulations on multi core machines. Performance Evaluation Review, 2012, 40, 2-11.	0.6	26
4	Transparently Mixing Undo Logs and Software Reversibility for State Recovery in Optimistic PDES. ACM Transactions on Modeling and Computer Simulation, 2017, 27, 1-26.	0.8	24
5	Di-DyMeLoR: Logging only Dirty Chunks for Efficient Management of Dynamic Memory Based Optimistic Simulation Objects. , 2009, , .		23
6	The Ultimate Share-Everything PDES System. , 2018, , .		19
7	Transparent multi-core speculative parallelization of DES models with event and cross-state dependencies. , 2014, , .		17
8	A Machine Learning-Based Framework for Building Application Failure Prediction Models. , 2015, , .		17
9	Hijacker: Efficient static software instrumentation with applications in high performance computing: Poster paper. , 2013, , .		16
10	Autonomic Log/Restore for Advanced Optimistic Simulation Systems. , 2010, , .		15
11	Hardware-Transactional-Memory Based Speculative Parallel Discrete Event Simulation of Very Fine Grain Models. , 2015, , .		14
12	OS-Based NUMA Optimization: Tackling the Case of Truly Multi-thread Applications with Non-partitioned Virtual Page Accesses. , 2016, , .		13
13	A Lock-Free O(1) Event Pool and Its Application to Share-Everything PDES Platforms. , 2016, , .		13
14	A Fine-Grain Time-Sharing Time Warp System. ACM Transactions on Modeling and Computer Simulation, 2017, 27, 1-25.	0.8	13
15	A Conflict-Resilient Lock-Free Calendar Queue for Scalable Share-Everything PDES Platforms. , 2017, , .		13
16	Transparently Mixing Undo Logs and Software Reversibility for State Recovery in Optimistic PDES. , 2015, , .		12
17	Transparent and Efficient Shared-State Management for Optimistic Simulations on Multi-core Machines. , 2012, , .		11
18	Wait-Free Global Virtual Time Computation in Shared Memory TimeWarp Systems. , 2014, , .		11

#	Article	IF	Citations
19	A flexible framework for accurate simulation of cloud in-memory data stores. Simulation Modelling Practice and Theory, 2015, 58, 219-238.	3.8	11
20	Simulation-Based Evolutionary Optimization of Air Traffic Management. IEEE Access, 2020, 8, 161551-161570.	4.2	11
21	The ROme OpTimistic Simulator: Core Internals and Programming Model. , 2011, , .		11
22	Consistent and efficient output-streams management in optimistic simulation platforms. , 2013, , .		10
23	Machine Learning for Achieving Self-* Properties and Seamless Execution of Applications in the Cloud. , 2015, , .		9
24	NUMA Time Warp. , 2015, , .		9
25	Granular Time Warp Objects. , 2016, , .		9
26	Cross-state events: A new approach to parallel discrete event simulation and its speculative runtime support. Journal of Parallel and Distributed Computing, 2019, 132, 48-68.	4.1	9
27	Multi-threaded Simulation of 4G Cellular Systems within the LTE-Sim Framework. , 2013, , .		8
28	Proactive Cloud Management for Highly Heterogeneous Multi-cloud Infrastructures. , 2016, , .		7
29	The ROme OpTimistic Simulator: A Tutorial. Lecture Notes in Computer Science, 2014, , 501-512.	1.3	7
30	RAMSES: Reversibility-Based Agent Modeling and Simulation Environment with Speculation-Support. Lecture Notes in Computer Science, 2015, , 466-478.	1.3	7
31	Proactive Scalability and Management of Resources in Hybrid Clouds via Machine Learning. , 2015, , .		6
32	Transparent Speculative Parallelization of Discrete Event Simulation Applications Using Global Variables. International Journal of Parallel Programming, 2016, 44, 1200-1247.	1.5	6
33	Autonomic rejuvenation of cloud applications as a countermeasure to software anomalies. Software - Practice and Experience, 2021, 51, 46-71.	3.6	6
34	Adaptive Transactional Memories: Performance and Energy Consumption Tradeoffs. , 2014, , .		5
35	Anonymous Readers Counting: A Wait-Free Multi-Word Atomic Register Algorithm for Scalable Data Sharing on Multi-Core Machines. IEEE Transactions on Parallel and Distributed Systems, 2019, 30, 286-299.	5.6	5
36	A Framework for High Performance Simulation of Transactional Data Grid Platforms. , 2013, , .		5

#	Article	IF	Citations
37	Benchmarking Memory Management Capabilities within ROOT-Sim. , 2009, , .		4
38	Machine learning-based management of cloud applications in hybrid clouds: A Hadoop case study. , 2017, , .		4
39	Adaptive Model-Based Scheduling in Software Transactional Memory. IEEE Transactions on Computers, 2020, 69, 621-632.	3.4	4
40	Programmability and Performance of Parallel ECS-Based Simulation of Multi-agent Exploration Models. Lecture Notes in Computer Science, 2014, , 395-406.	1.3	4
41	Transparent Support for Partial Rollback in Software Transactional Memories. Lecture Notes in Computer Science, 2013, , 583-594.	1.3	4
42	A Distributed Shared Memory Middleware for Speculative Parallel Discrete Event Simulation. ACM Transactions on Modeling and Computer Simulation, 2020, 30, 1-26.	0.8	4
43	An Evolutionary Algorithm to Optimize Log/Restore Operations within Optimistic Simulation Platforms. , 2011, , .		4
44	Speculative Distributed Simulation of VeryÂLargeÂSpikingÂNeuralÂNetworks. , 2022, , .		4
45	Configurable and Efficient Memory Access Tracing via Selective Expression-Based x86 Binary Instrumentation. , 2016, , .		3
46	An Agent-Based Simulation API for Speculative PDES Runtime Environments. , 2019, , .		3
47	Hardware-Assisted Incremental Checkpointing in Speculative Parallel Discrete Event Simulation. , 2019, , .		3
48	Mutable locks: Combining the best of spin and sleep locks. Concurrency Computation Practice and Experience, 2020, 32, e5858.	2.2	3
49	On power capping and performance optimization of multithreaded applications. Concurrency Computation Practice and Experience, 2021, 33, e6205.	2.2	3
50	Agent-based Modeling and Simulation for Emergency Scenarios: A Holistic Approach. , 2020, , .		3
51	Dealing with Reversibility of Shared Libraries in PDES. , 2017, , .		3
52	Exploiting Inter-Processor-Interrupts for Virtual-Time Coordination in Speculative Parallel Discrete Event Simulation. , 2020, , .		3
53	A load-sharing architecture for high performance optimistic simulations on multi-core machines. , 2012, , .		2
54	Time-Sharing Time Warp via Lightweight Operating System Support. , 2015, , .		2

#	Article	IF	Citations
55	Preemptive Software Transactional Memory. , 2017, , .		2
56	Towards a fully non-blocking share-everything PDES platform. , 2017, , .		2
57	Prompt application-transparent transaction revalidation in software transactional memory. , 2017, , .		2
58	A Non-blocking Buddy System for Scalable Memory Allocation on Multi-core Machines. , 2018, , .		2
59	Cache-Aware Memory Manager for Optimistic Simulations. , 2012, , .		2
60	A Power Cap Oriented Time Warp Architecture. , 2018, , .		2
61	Porting Event &Cross-State Synchronization to the Cloud. , 2018, , .		2
62	Approximated Rollbacks. , 2020, , .		2
63	Assessing load-sharing within optimistic simulation platforms. , 2012, , .		1
64	Mixing Hardware and Software Reversibility for Speculative Parallel Discrete Event Simulation. Lecture Notes in Computer Science, 2016, , 137-152.	1.3	1
65	A Wait-Free Multi-word Atomic (1,N) Register for Large-Scale Data Sharing on Multi-core Machines. , 2017, , .		1
66	A non-blocking global virtual time algorithm with logarithmic number of memory operations. , 2017, , .		1
67	A Study on the Parallelization of Terrain-Covering Ant Robots Simulations. Lecture Notes in Computer Science, 2014, , 585-594.	1.3	1
68	Analysis and optimization of a demographic simulator for parallel environments. , 2015, , .		0
69	Machine Learning-Based Elastic Cloud Resource Provisioning in the Solvency II Framework. , 2016, , .		0
70	Optimizing memory management for optimistic simulation with reinforcement learning. , 2016, , .		0
71	Programming agent-based demographic models with cross-state and message-exchange dependencies: A study with speculative PDES and automatic load-sharing. , 2016, , .		0
72	ORCHESTRA: An asynchronous wait-free distributed GVT algorithm. , 2017, , .		0

#	Article	IF	Citations
73	OPTIMIZING SIMULATION ON SHARED-MEMORY PLATFORMS: THE SMART CITIES CASE. , 2018, , .		0
74	NBBS: A Non-Blocking Buddy System for Multi-core Machines. , 2019, , .		0
75	NUMA-Aware Non-Blocking Calendar Queue. , 2020, , .		0
76	Support to Design for Air Traffic Management: An Approach with Agent-Based Modelling and Evolutionary Search. International Journal of Aviation, Aeronautics, and Aerospace, 0, , .	0.2	0
77	NBBS: A Non-Blocking Buddy System for Multi-Core Machines. IEEE Transactions on Computers, 2022, 71, 599-612.	3.4	0
78	Replication of Computational Results Report for â€œ Green Simulation with Database Monte Carlo â€•. ACM Transactions on Modeling and Computer Simulation, 2021, 31, 1-4.	0.8	0
79	Load-Sharing Policies in Parallel Simulation of Agent-Based Demographic Models. Lecture Notes in Computer Science, 2017, , 334-346.	1.3	0
80	Layered architectural approach for distributed simulation systems: The SimArch case. , 2018, , 264-293.		0
81	Autonomic Power Management in Speculative Simulation Runtime Environments. , 2020, , .		0
82	Editorial to the Special Issue on the Principles of Advanced Discrete Simulation (PADS). ACM Transactions on Modeling and Computer Simulation, 2020, 30, 1-2.	0.8	0