James H Anderson

List of Publications by Year
in descending order

134	3,516	279798	315739
papers	citations	23	38
		h-index	g-index

134	134	134	973
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Minimizing DAG Utilization by Exploiting SMT. , 2022, , .		3
2	Concurrency groups: a new way to look at real-time multiprocessor lock nesting. Real-Time Systems, 2021, 57, 190-226.	1.3	1
3	Tardiness bounds for fixed-priority global scheduling without intra-task precedence constraints. Real-Time Systems, 2021, 57, 4-54.	1.3	0
4	Statically optimal dynamic soft real-time semi-partitioned scheduling. Real-Time Systems, 2021, 57, 97-140.	1.3	2
5	The price of schedulability in cyclic workloads: The history-vs.-response-time-vs.-accuracy trade-off. Journal of Systems Architecture, 2021, 120, 102292.	4.3	1
6	TORTIS: Retry-Free Software Transactional Memory for Real-Time Systems. , 2021, , .		1
7	AI Meets Real-Time: Addressing Real-World Complexities in Graph Response-Time Analysis. , 2021, , .		6
8	The Price of Schedulability in Multi-Object Tracking: The History-vs.-Accuracy Trade-Off. , 2020, , .		1
9	A Soft-Real-Time-Optimal Semi-Clustered Scheduler with a Constant Tardiness Bound. , 2020, , .		1
10	Supporting I/O and IPC via fine-grained OS isolation for mixed-criticality real-time tasks. Real-Time Systems, 2020, 56, 349-390.	1.3	5
11	Re-Thinking CNN Frameworks for Time-Sensitive Autonomous-Driving Applications: Addressing an Industrial Challenge. , 2019, , .		48
12	Real-time multiprocessor locks with nesting: optimizing the common case. Real-Time Systems, 2019, 55, 296-348.	1.3	8
13	OpenVX and Real-Time Certification: The Troublesome History. , 2019, , .		7
14	Soft Real-Time Scheduling. , 2019, , 1-35.		2
15	Making OpenVX Really "Real Time". , 2018, , .		25
16	Work in Progress: Combining Real Time and Multithreading. , 2018, , .		1
17	Work-in-Progress: Lock-Based Software Transactional Memory for Real-Time Systems. , 2018, , .		0
18	An Optimal Semi-Partitioned Scheduler Assuming Arbitrary Affinity Masks. , 2018, , .		5

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19	Supporting I/O and IPC via Fine-Grained OS Isolation for Mixed-Criticality Real-Time Tasks. , 2018, , .		14
20	An Evaluation of the NVIDIA TX1 for Supporting Real-Time Computer-Vision Workloads. , 2017, , .		67
21	Allowing Shared Libraries While Supporting Hardware Isolation in Multicore Real-Time Systems. , 2017, , .		12
22	Attacking the one-out-of-m multicore problem by combining hardware management with mixed-criticality provisioning. Real-Time Systems, 2017, 53, 709-759.	1.3	25
23	GPU Scheduling on the NVIDIA TX2: Hidden Details Revealed. , 2017, , .		109
24	Reducing Response-Time Bounds for DAG-Based Task Systems on Heterogeneous Multicore Platforms. , 2016, , .		23
25	Reconciling the Tension Between Hardware Isolation and Data Sharing in Mixed-Criticality, Multicore Systems. , 2016, , .		29
26	On the Dominance of Minimum-Parallelism Multiprocessor Supply. , 2016, , .		6
27	Multiprocessor Real-Time Locking Protocols for Replicated Resources. , 2016, , .		8
28	Attacking the One-Out-Of-m Multicore Problem by Combining Hardware Management with Mixed-Criticality Provisioning. , 2016, , .		43
29	Optimal Semi-Partitioned Scheduling in Soft Real-Time Systems. Journal of Signal Processing Systems, 2016, 84, 3-23.	2.1	15
30	Supporting Real-Time Computer Vision Workloads Using OpenVX on Multicore+GPU Platforms. , 2015, , .		16
31	Analysis for supporting real-time computer vision workloads using OpenVX on multicore+GPU platforms. , 2015, , .		18
32	Cache Sharing and Isolation Tradeoffs in Multicore Mixed-Criticality Systems. , 2015, , .		26
33	Recovering from Overload in Multicore Mixed-Criticality Systems. , 2015, , .		11
34	An Optimal Semi-partitioned Scheduler for Uniform Heterogeneous Multiprocessors. , 2015, , .		5
35	On the Soft Real-Time Optimality of Global EDF on Multiprocessors: From Identical to Uniform Heterogeneous. , 2015, , .		5
36	A contention-sensitive fine-grained locking protocol for multiprocessor real-time systems. , 2015, , .		13

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37	Independence Thresholds: Balancing Tractability and Practicality in Soft Real-Time Stochastic Analysis. , 2014, , .		9
38	Optimal GEDF-based schedulers that allow intra-task parallelism on heterogeneous multiprocessors. , 2014, , .		9
39	Multi-resource Real-Time Reader/Writer Locks for Multiprocessors. , 2014, , .		15
40	Optimal semi-partitioned scheduling in soft real-time systems. , 2014, , .		8
41	Exploring the Multitude of Real-Time Multi-GPU Configurations. , 2014, , .		5
42	Fair lateness scheduling: reducing maximum lateness in G-EDF-like scheduling. Real-Time Systems, 2014, 50, 5-47.	1.3	26
43	Supporting soft real-time parallel applications on multiprocessors. Journal of Systems Architecture, 2014, 60, 152-164.	4.3	3
44	Bringing theory into practice: A userspace library for multicore real-time scheduling. , 2013, , .		13
45	GPUSync: A Framework for Real-Time GPU Management. , 2013, , .		90
46	Suspension-Aware Analysis for Hard Real-Time Multiprocessor Scheduling. , 2013, , .		24
47	Outstanding Paper Award: Making Shared Caches More Predictable on Multicore Platforms. , 2013, , .		58
48	An optimal k-exclusion real-time locking protocol motivated by multi-GPU systems. Real-Time Systems, 2013, 49, 140-170.	1.3	24
49	The OMLP family of optimal multiprocessor real-time locking protocols. Design Automation for Embedded Systems, 2013, 17, 277-342.	1.0	34
50	An evaluation of the RUN algorithm in LITMUS RT. ACM SIGBED Review, 2013, 10, 29-29.	1.8	0
51	A new technique for analyzing soft real-time self-suspending task systems. ACM SIGBED Review, 2012, 9, 29-32.	1.8	2
52	Replica-Request Priority Donation: A Real-Time Progress Mechanism for Global Locking Protocols. , 2012, , .		15
53	An O(m) Analysis Technique for Supporting Real-Time Self-Suspending Task Systems. , 2012, , .		20
54	Supporting Nested Locking in Multiprocessor Real-Time Systems. , 2012, , .		48

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55	Robust Real-Time Multiprocessor Interrupt Handling Motivated by GPUs. , 2012, , .		21
56	Supporting Soft Real-Time Parallel Applications on Multicore Processors. , 2012, , .		22
57	Globally scheduled real-time multiprocessor systems with GPUs. Real-Time Systems, 2012, 48, 34-74.	1.3	56
58	A time complexity lower bound for adaptive mutual exclusion. Distributed Computing, 2012, 24, 271-297.	0.8	5
59	Real-World Constraints of GPUs in Real-Time Systems. , 2011, , .		30
60	Soft Real-Time on Multiprocessors: Are Analysis-Based Schedulers Really Worth It?. , 2011, , .		12
61	Is Semi-Partitioned Scheduling Practical?. , 2011, , .		61
62	Multiprocessor extensions to real-time calculus. Real-Time Systems, 2011, 47, 562-617.	1.3	7
63	An overview of interrupt accounting techniques for multiprocessor real-time systems. Journal of Systems Architecture, 2011, 57, 638-654.	4.3	16
64	Supporting Graph-Based Real-Time Applications in Distributed Systems. , 2011, , .		12
65	Response Time Bounds for G-EDF without Intra-Task Precedence Constraints. Lecture Notes in Computer Science, 2011, , 128-142.	1.3	12
66	Generalized tardiness bounds for global multiprocessor scheduling. Real-Time Systems, 2010, 44, 26-71.	1.3	45
67	Spin-based reader-writer synchronization for multiprocessor real-time systems. Real-Time Systems, 2010, 46, 25-87.	1.3	22
68	Optimality Results for Multiprocessor Real-Time Locking. , 2010, , .		98
69	Improving the Schedulability of Sporadic Self-Suspending Soft Real-Time Multiprocessor Task Systems. , 2010, , .		9
70	Scheduling Suspendable, Pipelined Tasks with Non-Preemptive Sections in Soft Real-Time Multiprocessor Systems. , 2010, , .		10
71	Supporting Soft Real-Time DAG-Based Systems on Multiprocessors with No Utilization Loss. , 2010, , .		24
72	An Empirical Comparison of Global, Partitioned, and Clustered Multiprocessor EDF Schedulers. , 2010, , .		94

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73	On the Implementation of Global Real-Time Schedulers. , 2009, , .		49
74	Task Scheduling with Self-Suspensions in Soft Real-Time Multiprocessor Systems. , 2009, , .		35
75	Multiprocessor Extensions to Real-Time Calculus. , 2009, , .		9
76	A hierarchical multiprocessor bandwidth reservation scheme with timing guarantees. Real-Time Systems, 2009, 43, 60-92.	1.3	18
77	Improved conditions for bounded tardiness under EPDF Pfair multiprocessor scheduling. Journal of Computer and System Sciences, 2009, 75, 388-420.	1.2	1
78	Reader-Writer Synchronization for Shared-Memory Multiprocessor Real-Time Systems. , 2009, , .		15
79	Supporting Pipelines in Soft Real-Time Multiprocessor Systems. , 2009, , .		3
80	Accounting for Interrupts in Multiprocessor Real-Time Systems. , 2009, , .		10
81	Supporting Sporadic Pipelined Tasks with Early-Releasing in Soft Real-Time Multiprocessor Systems. , 2009, , .		7
82	An EDF -based restricted-migration scheduling algorithm for multiprocessor soft real-time systems. Real-Time Systems, 2008, 38, 85-131.	1.3	24
83	Task reweighting under global scheduling on multiprocessors. Real-Time Systems, 2008, 39, 123-167.	1.3	7
84	A schedulable utilization bound for the multiprocessor EPDF Pfair algorithm. Real-Time Systems, 2008, 38, 237-288.	1.3	3
85	On the Scalability of Real-Time Scheduling Algorithms on Multicore Platforms: A Case Study. , 2008, , .		80
86	An Implementation of the PCP, SRP, D-PCP, M-PCP, and FMLP Real-Time Synchronization Protocols in LITMUS^RT. , 2008, , .		33
87	Cache-Aware Real-Time Scheduling on Multicore Platforms: Heuristics and a Case Study. , 2008, , .		49
88	A Unified Hard/Soft Real-Time Schedulability Test for Global EDF Multiprocessor Scheduling. , 2008, , .		18
89	Real-Time Synchronization on Multiprocessors: To Block or Not to Block, to Suspend or Spin?. , 2008, , .		74
90	A Hierarchical Multiprocessor Bandwidth Reservation Scheme with Timing Guarantees. , 2008, , .		26

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91	A Comparison of the M-PCP, D-PCP, and FMLP on LITMUSRT. Lecture Notes in Computer Science, 2008, , 105-124.	1.3	31
92	Tardiness Bounds for FIFO Scheduling on Multiprocessors. Real-Time Systems (ECRTS), Proceedings of the Euromicro Workshop on, 2007, , .	0.0	27
93	Generalized Tardiness Bounds for Global Multiprocessor Scheduling. , 2007, , .		28
94	Tardiness Bounds for EDF Scheduling on Multi-Speed Multicore Platforms. Gifted and Talented International, 2007, , .	0.8	12
95	A Flexible Real-Time Locking Protocol for Multiprocessors. Gifted and Talented International, 2007, , .	0.8	179
96	Integrating Hard/Soft Real-Time Tasks and Best-Effort Jobs on Multiprocessors. Real-Time Systems (ECRTS), Proceedings of the Euromicro Workshop on, 2007, , .	0.0	36
97	A Hybrid Real-Time Scheduling Approach for Large-Scale Multicore Platforms. Real-Time Systems (ECRTS), Proceedings of the Euromicro Workshop on, 2007, , .	0.0	79
98	Soft Real-Time Scheduling on Performance Asymmetric Multicore Platforms. Real Time and Embedded Technology and Applications Symposium (RTAS), IEEE, 2007, , .	0.0	33
99	A generic local-spin fetch-and--based mutual exclusion algorithm. Journal of Parallel and Distributed Computing, 2007, 67, 551-580.	4.1	3
100	LITMUS^RT : A Testbed for Empirically Comparing Real-Time Multiprocessor Schedulers. , 2006, , .		123
101	Optimal rate-based scheduling on multiprocessors. Journal of Computer and System Sciences, 2006, 72, 1094-1117.	1.2	30
102	Group-Based Pfair Scheduling. Real-Time Systems, 2006, 32, 125-168.	1.3	11
103	Adaptive mutual exclusion with local spinning. Distributed Computing, 2006, 19, 197-236.	0.8	14
104	Supporting lock-free synchronization in Pfair-scheduled real-time systems. Journal of Parallel and Distributed Computing, 2006, 66, 47-67.	4.1	10
105	Locking under Pfair scheduling. ACM Transactions on Computer Systems, 2006, 24, 140-174.	0.8	12
106	Parallel task scheduling on multicore platforms. ACM SIGBED Review, 2006, 3, 1-6.	1.8	36
107	Parallel Real-Time Task Scheduling on Multicore Platforms. , 2006, , .		43
108	Fair scheduling of dynamic task systems on multiprocessors. Journal of Systems and Software, 2005, 77, 67-80.	4.5	39

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109	Mixed Pfair/ERfair scheduling of asynchronous periodic tasks. Journal of Computer and System Sciences, 2004, 68, 157-204.	1.2	85
110	Shared-memory mutual exclusion: major research trends since 1986. Distributed Computing, 2003, 16, 75-110.	0.8	114
111	Timing-Based Mutual Exclusion with Local Spinning. Lecture Notes in Computer Science, 2003, , 30-44.	1.3	5
112	Optimal rate-based scheduling on multiprocessors. , 2002, , .		51
113	Nonatomic mutual exclusion with local spinning. , 2002, , .		14
114	An improved lower bound for the time complexity of mutual exclusion. Distributed Computing, 2002, 15, 221-253.	0.8	46
115	A space- and time-efficient local-spin spin lock. Information Processing Letters, 2002, 84, 47-55.	0.6	5
116	A new fast-path mechanism for mutual exclusion. Distributed Computing, 2001, 14, 17-29.	0.8	11
117	An improved lower bound for the time complexity of mutual exclusion. , 2001, , .		15
118	Lamport on mutual exclusion. , 2001, , .		13
119	A Time Complexity Bound for Adaptive Mutual Exclusion. Lecture Notes in Computer Science, 2001, , 1-15.	1.3	14
120	Fast and Scalable Mutual Exclusion. Lecture Notes in Computer Science, 1999, , 180-195.	1.3	10
121	Using local-spin k -exclusion algorithms to improve wait-free object implementations. Distributed Computing, 1997, 11, 1-20.	0.8	21
122	Time/Contention Trade-Offs for Multiprocessor Synchronization. Information and Computation, 1996, 124, 68-84.	0.7	30
123	Wait-free algorithms for fast, long-lived renaming. Science of Computer Programming, 1995, 25, 1-39.	1.9	91
124	Multi-writer composite registers. Distributed Computing, 1994, 7, 175-195.	0.8	65
125	A fine-grained solution to the mutual exclusion problem. Acta Informatica, 1993, 30, 249-265.	0.5	17
126	Composite registers. Distributed Computing, 1993, 6, 141-154.	0.8	73

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127	Towards a necessary and sufficient condition for wait-free synchronization (Extended Abstract). Lecture Notes in Computer Science, 1993, , 39-53.	1.3	3
128	Pseudo read-modify-write operations: Bounded wait-free implementations. Lecture Notes in Computer Science, 1992, , 52-70.	1.3	6
129	A criterion for atomicity. Formal Aspects of Computing, 1992, 4, 273-298.	1.8	18
130	Beyond atomic registers: bounded wait-free implementations of nontrivial objects. Science of Computer Programming, 1992, 19, 197-237.	1.9	6
131	A new explanation of the glitch phenomenon. Acta Informatica, 1991, 28, 297-309.	0.5	11
132	Atomic semantics of nonatomic programs. Information Processing Letters, 1988, 28, 99-103.	0.6	9
133	The elusive atomic register revisited. , 1987, , .		55
134	Exploring AMD GPU scheduling details by experimenting with â€œworst practicesâ€. Real-Time Systems, 0, , 1.	1.3	0