Chen Ding

List of Publications by Year
in descending order

70 papers	1,703 citations	840776 11 h-index	713466 21 g-index
71 all docs	71 docs citations	71 times ranked	487 citing authors

#	ARTICLE	IF	CITATIONS
1	CARL: Compiler Assigned Reference Leasing. Transactions on Architecture and Code Optimization, 2022, 19, 1-28.	2.0	0
2	Uniform lease vs. LRU cache: analysis and evaluation. , 2021, , .		2
3	Writeback Modeling: Theory and Application to Zipfian Workloads. , 2021, , .		0
4	PLUM. , 2020, , .		0
5	A Relational Theory of Locality. Transactions on Architecture and Code Optimization, 2019, 16, 1-26.	2.0	11
6	Beating OPT with Statistical Clairvoyance and Variable Size Caching. , 2019, , .		16
7	Cacheap: Portable and Collaborative I/O Optimization for Graph Processing. Journal of Computer Science and Technology, 2019, 34, 690-706.	1.5	1
8	Statistical caching for near memory management. , 2019, , .		0
9	Fast Miss Ratio Curve Modeling for Storage Cache. ACM Transactions on Storage, 2018, 14, 1-34.	2.1	21
10	Fine-grained data usage analysis by access sampling. , 2018, , .		0
11	Footprint modeling of cache associativity and granularity. , 2018, , .		4
12	Locality analysis through static parallel sampling. , 2018, , .		14
13	Prediction and bounds on shared cache demand from memory access interleaving. , 2018, , .		3
14	Locality analysis through static parallel sampling. ACM SIGPLAN Notices, 2018, 53, 557-570.	0.2	3
15	Prediction and bounds on shared cache demand from memory access interleaving. ACM SIGPLAN Notices, 2018, 53, 96-108.	0.2	0
16	Rochester Elastic Cache Utility (RECU): Unequal Cache Sharing is Good Economics. International Journal of Parallel Programming, 2017, 45, 30-44.	1.5	9
17	Thread Data Sharing in Cache. , 2017, , .		18
18	LD. Transactions on Architecture and Code Optimization, 2017, 14, 1-25.	2.0	8

#	ARTICLE	IF	CITATIONS
19	Cache Exclusivity and Sharing. Transactions on Architecture and Code Optimization, 2017, 14, 1-26.	2.0	9
20	Optimal Symbiosis and Fair Scheduling in Shared Cache. IEEE Transactions on Parallel and Distributed Systems, 2017, 28, 1134-1148.	5.6	7
21	Adaptive Software Caching for Efficient NVRAM Data Persistence. , 2017, , .		8
22	Memory equalizer for lateral management of heterogeneous memory. , 2017, , .		0
23	Write Locality and Optimization for Persistent Memory. , 2016, , .		7
24	Replacement Policies for Heterogeneous Memories. , 2016, , .		2
25	Rethinking a heap hierarchy as a cache hierarchy: a higher-order theory of memory demand (HOTM). , 2016, , .		8
26	Compositional model of coherence and NUMA effects for optimizing thread and data placement. , 2016, , .		9
27	Rethinking Memory Management in Modern Operating System: Horizontal, Vertical or Random?. IEEE Transactions on Computers, 2016, 65, 1921-1935.	3.4	23
28	Data-centric combinatorial optimization of parallel code. , 2016, , .		8
29	Hardware support for protective and collaborative cache sharing. , 2016, , .		0
30	Optimal Cache Partition-Sharing. , 2015, , .		45
31	Optimal Footprint Symbiosis in Shared Cache. , 2015, , .		9
32	Assessing Safe Task Parallelism in SPEC 2006 INT. , 2015, , .		1
33	Modeling heap data growth using average liveness. ACM SIGPLAN Notices, 2015, 49, 71-82.	0.2	1
34	MMC. , 2015, , .		0
35	Modeling heap data growth using average liveness. , 2014, , .		13
36	Protection and utilization in shared cache through rationing. , 2014, , .		3

#	Article	IF	Citations
37	Code Layout Optimization for Defensiveness and Politeness in Shared Cache. , 2014, , .		13
38	Performance Metrics and Models for Shared Cache. Journal of Computer Science and Technology, 2014, 29, 692-712.	1.5	12
39	Defensive loop tiling for shared cache. , 2013, , .		22
40	HOTL. , 2013, , .		70
41	All-window data liveness. , 2013, , .		9
42	Pacman. , 2013, , .		16
43	HOTL. ACM SIGPLAN Notices, 2013, 48, 343-356.	0.2	7
44	Modeling the Locality in Graph Traversals. , 2012, , .		7
45	Delta Send-Recv for Dynamic Pipelining in MPI Programs. , 2012, , .		2
46	Cache Conscious Task Regrouping on Multicore Processors. , 2012, , .		25
47	Linear-time Modeling of Program Working Set in Shared Cache. , 2011, , .		50
48	Safe parallel programming using dynamic dependence hints. , 2011, , .		12
49	On the theory and potential of LRU-MRU collaborative cache management. , 2011, , .		18
50	All-window profiling and composable models of cache sharing. ACM SIGPLAN Notices, 2011, 46, 91-102.	0.2	19
51	All-window profiling and composable models of cache sharing. , 2011, , .		39
52	Fast Track: A Software System for Speculative Program Optimization. , 2009, , .		78
53	Program locality analysis using reuse distance. ACM Transactions on Programming Languages and Systems, 2009, 31, 1-39.	2.1	120
54	All-window profiling of concurrent executions. , 2008, , .		19

#	Article	IF	Citations
55	P-OPT: Program-Directed Optimal Cache Management. Lecture Notes in Computer Science, 2008, , 217-231.	1.3	22
56	Locality approximation using time. , 2007, , .		58
57	Software behavior oriented parallelization. , 2007, , .		131
58	Miss Rate Prediction Across Program Inputs and Cache Configurations. IEEE Transactions on Computers, 2007, 56, 328-343.	3.4	48
59	Predicting locality phases for dynamic memory optimization. Journal of Parallel and Distributed Computing, 2007, 67, 783-796.	4.1	14
60	Program-level adaptive memory management. , 2006, , .		40
61	Program phase detection and exploitation. , 2006, , .		1
62	Parallelization of Utility Programs Based on Behavior Phase Analysis. Lecture Notes in Computer Science, 2006, , 425-432.	1.3	4
63	Lightweight reference affinity analysis. , 2005, , .		23
64	Locality phase prediction. , 2004, , .		154
65	Improving effective bandwidth through compiler enhancement of global cache reuse. Journal of Parallel and Distributed Computing, 2004, 64, 108-134.	4.1	69
66	Array regrouping and structure splitting using whole-program reference affinity. , 2004, , .		93
67	Locality phase prediction. Computer Architecture News, 2004, 32, 165-176.	2.5	3
68	Predicting whole-program locality through reuse distance analysis. ACM SIGPLAN Notices, 2003, 38, 245-257.	0.2	80
69	Improving cache performance in dynamic applications through data and computation reorganization at run time. , 1999, , .		159
70	The Potential of Computation Regrouping for Improving Locality. , 0, , .		3