

Yitzhak Birk

List of Publications by Year in descending order

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76
papers

1,499
citations

1040056

9
h-index

501196

28
g-index

77
all docs

77
docs citations

77
times ranked

594
citing authors

#	ARTICLE	IF	CITATIONS
1	Passive CMOS Single Photon Avalanche Diode Imager for a Gun Muzzle Flash Detection System. IEEE Sensors Journal, 2019, 19, 5851-5858.	4.7	3
2	Post-Silicon Analysis of Shielded Interconnect Delays for Useful Skew Clock Design. IEEE Transactions on Electron Devices, 2019, 66, 4875-4882.	3.0	1
3	Distributed Memory Integrity Trees. IEEE Computer Architecture Letters, 2018, 17, 159-162.	1.5	2
4	Time, Speed, Memory and Energy in Hybrid Data Center Networks – Insights and Some Guidelines. , 2018, , .		0
5	Switch Radix Reduction and Support for Concurrent Bidirectional Traffic in RotorNets. , 2018, , .		0
6	Redundancy and Randomization as Effective Tools for Improving Performance. , 2018, , .		0
7	CMOS Single-Photon Avalanche Diode Pixel Design for a Gun Muzzle Flash Detection Camera. IEEE Transactions on Electron Devices, 2018, 65, 4407-4412.	3.0	1
8	Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 3435-3444.	5.4	2
9	Optimal VLSI Delay Tuning by Space Tapering With Clock-Tree Application. IEEE Transactions on Circuits and Systems I: Regular Papers, 2017, 64, 2160-2170.	5.4	4
10	Sound Covert: A Fast and Silent Communication Channel through the Audio Buffer. , 2017, , .		3
11	SeM. , 2017, , .		1
12	Prototype of real-time single photon avalanche diode-based muzzle flash detector. , 2017, , .		0
13	Minimal Maximum-Level Programming – Combined Cell Mapping and Coding for Faster MLC Memory. IEEE Journal on Selected Areas in Communications, 2016, 34, 2416-2429.	14.0	2
14	SDSM: Fast and scalable security support for directory-based distributed shared memory. , 2016, , .		0
15	Fast and Scalable Security Support for Directory-Based Distributed Shared Memory. , 2016, , .		0
16	SDSM: Fast and scalable security support for directory-based distributed shared memory. , 2016, , .		1
17	A Data Centric Perspective on Memory Placement. , 2015, , .		1
18	Accelerating duplicate data chunk recognition using NN trained by locality-sensitive hash. , 2014, , .		0

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19	Scheduling directives: Accelerating shared-memory many-core processor execution. <i>Parallel Computing</i> , 2014, 40, 90-106.	2.1	0
20	Replicate and Bundle (RnB) – A Mechanism for Relieving Bottlenecks in Data Centers. , 2013, , .		12
21	Minimal Maximum-Level Programming: Faster memory access via multi-level cell sharing. , 2013, , .		4
22	A computationally efficient algorithm for the 2D covariance method. , 2013, , .		1
23	Scheduling directives for shared-memory many-core processor systems. , 2013, , .		1
24	Retired-page utilization in write-once memory — A coding perspective. , 2013, , .		4
25	Probabilistic performance of write-once memory with Linear Wom codes — Analysis and insights. , 2012, , .		3
26	Memory array microarchitecture: Algorithmic techniques for density and performance enhancement. , 2012, , .		0
27	Low-complexity two-dimensional data encoding for memory inter-cell interference reduction. , 2012, , .		5
28	Merge Path - Parallel Merging Made Simple. , 2012, , .		38
29	Buffered deflection routing for networks-on-chip. , 2012, , .		3
30	Battery and energy management in fleets of switchable battery EVs. , 2011, , .		3
31	Index Coding With Side Information. <i>IEEE Transactions on Information Theory</i> , 2011, 57, 1479-1494.	2.4	374
32	Constrained Flash memory programming. , 2011, , .		38
33	Efficient parallel computation of the estimated covariance matrix. , 2010, , .		0
34	Using Underutilized CPU Resources to Enhance Its Reliability. <i>IEEE Transactions on Dependable and Secure Computing</i> , 2010, 7, 94-109.	5.4	30
35	Integrating de-duplication and write for increased performance and endurance of Solid-State Drives. , 2010, , .		2
36	Rejuvenating ALOHA: Motivation, approaches and insights. , 2010, , .		1

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37	Improving communication-phase completion times in HPC clusters through congestion mitigation. , 2009, , .		4
38	Maximizing delay-constrained throughput in multi-channel DS-CDMA ALOHA networks through power diversity and successive decoding. <i>Wireless Networks</i> , 2009, 15, 1126-1139.	3.0	3
39	Dynamic reconfiguration architectures for multi-context FPGAs. <i>Computers and Electrical Engineering</i> , 2009, 35, 878-903.	4.8	11
40	TPT-RAID: a High Performance Box-Fault Tolerant Storage System. , 2007, , .		1
41	Coding and Scheduling Considerations for Peer-to-Peer Storage Backup Systems. , 2007, , .		2
42	Index Coding with Side Information. , 2006, , .		161
43	A PAB-Based Multi-Prefetcher Mechanism. <i>International Journal of Parallel Programming</i> , 2006, 34, 171-188.	1.5	5
44	Coding on demand by an informed source (ISCOD) for efficient broadcast of different supplemental data to caching clients. <i>IEEE Transactions on Information Theory</i> , 2006, 52, 2825-2830.	2.4	237
45	Veracity radius. , 2006, , .		17
46	ASC-Based Acceleration in an FPGA with a Processor Core Using Software-Only Skills. , 2006, , .		1
47	Efficient Dynamic Aggregation. <i>Lecture Notes in Computer Science</i> , 2006, , 90-104.	1.3	7
48	Increasing Deadline-Constrained Throughput in Multi-Channel ALOHA Networks via Non-Stationary Multiple-Power-Level Transmission Policies.. <i>Wireless Networks</i> , 2005, 11, 523-529.	3.0	4
49	In-kernel integration of operating system and infiniband functions for high performance computing clusters: a DSM example. <i>IEEE Transactions on Parallel and Distributed Systems</i> , 2005, 16, 830-840.	5.6	5
50	A Local Algorithm for Ad Hoc Majority Voting via Charge Fusion. <i>Lecture Notes in Computer Science</i> , 2004, , 275-289.	1.3	22
51	Coding schemes for multislot messages in multichannel ALOHA with deadlines. <i>IEEE Transactions on Wireless Communications</i> , 2002, 1, 292-301.	9.2	9
52	Multiple Working Points in Multichannel ALOHA with Deadlines. <i>Wireless Networks</i> , 2002, 8, 5-11.	3.0	17
53	An empirical analysis of the IEEE-1394 serial bus protocol. <i>IEEE Micro</i> , 2000, 20, 58-65.	1.8	9
54	Judicious use of redundant transmissions in multichannel ALOHA networks with deadlines. <i>IEEE Journal on Selected Areas in Communications</i> , 1999, 17, 257-269.	14.0	24

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55	Cost-Effective Jukebox Storage via Hybrid File-Block Caching. Lecture Notes in Computer Science, 1999, , 173-189.	1.3	0
56	The effects of destructive interference and wasted transmissions on the uniform-traffic capacity of non-bus-oriented single-hop interconnections. IEEE/ACM Transactions on Networking, 1996, 4, 442-448.	3.8	0
57	Using direction and elapsed-time information to reduce the wireless cost of locating mobile units in cellular networks. Wireless Networks, 1995, 1, 403-412.	3.0	35
58	On the uniform-traffic capacity of single-hop interconnections employing shared directional multichannels. IEEE Transactions on Information Theory, 1993, 39, 186-191.	2.4	26
59	Power-efficient layout of a fiber-optic multistar that permits $\log/\text{sub } 2/ N$ concurrent baseband transmissions among N stations. Journal of Lightwave Technology, 1993, 11, 908-913.	4.6	2
60	On-line control and deadlock-avoidance in a page-parallel multiprocessor rasterizer. IEEE Transactions on Parallel and Distributed Systems, 1993, 4, 155-163.	5.6	0
61	Fiber-optic bus-oriented single-hop interconnections among multi-transceiver stations. , 1992, , .		4
62	On finding non-intersecting straightline connections of grid points to the boundary. Journal of Algorithms, 1992, 13, 636-656.	0.9	10
63	Fiber-optic bus-oriented single-hop interconnections among multi-transceiver stations. Journal of Lightwave Technology, 1991, 9, 1657-1664.	4.6	6
64	â€œSupernodesâ€•in networks employing spread spectrum with code division multiple access. Computer Networks, 1988, 15, 341-357.	1.0	0
65	Selective Broadcast Interconnection (sbi) For Wideband Fiber-Optic Local Area Networks. , 1986, 0585, 179.		5
66	"Supernodes" in Packet Radio Networks Employing Code Division Multiple Access. , 1985, , .		5
67	Selective broadcast interconnection: a novel scheme for fiber-optic local-area networks. Optics Letters, 1985, 10, 629.	3.3	5
68	Bus-oriented interconnection topologies for single-hop communication among multi-transceiver stations. , 0, , .		13
69	Power-optimal layout of passive, single-hop, fiber-optic interconnections whose capacity increases with the number of stations. , 0, , .		8
70	Track-pairing: a novel data layout for VOD servers with multi-zone-recording disks. , 0, , .		23
71	Random RAIDs with selective exploitation of redundancy for high performance video servers. , 0, , .		18
72	Informed-source coding-on-demand (ISCOD) over broadcast channels. , 0, , .		244

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73	Deferred segmentation for wire-speed transmission of large TCP frames over standard GbE networks. , 0, , .		7
74	A bucket-interleaving multiplexer for efficient near-on-demand streaming to resource-constrained clients. , 0, , .		0
75	Distributed-and-split data-control extension to SCSI for scalable storage area networks. , 0, , .		1
76	Efficient exploitation of kernel access to Infiniband: a software DSM example. , 0, , .		4