

Randal C Burns

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

72
papers

3,436
citations

22
h-index

58
g-index

83
ext. papers

4,250
ext. citations

7.2
avg, IF

4.74
L-index

#	Paper	IF	Citations
72	Supervised dimensionality reduction for big data. <i>Nature Communications</i> , 2021 , 12, 2872	17.4	3
71	Toward Community-Driven Big Open Brain Science: Open Big Data and Tools for Structure, Function, and Genetics. <i>Annual Review of Neuroscience</i> , 2020 , 43, 441-464	17	8
70	Agni 2019 ,		2
69	Remote visual analysis of large turbulence databases at multiple scales. <i>Journal of Parallel and Distributed Computing</i> , 2018 , 120, 115-126	4.4	7
68	FlashR 2018 ,		1
67	FlashR. <i>ACM SIGPLAN Notices</i> , 2018 , 53, 183-194	0.2	
66	Building NDStore Through Hierarchical Storage Management and Microservice Processing 2018 ,		2
65	A community-developed open-source computational ecosystem for big neuro data. <i>Nature Methods</i> , 2018 , 15, 846-847	21.6	33
64	Whole-brain serial-section electron microscopy in larval zebrafish. <i>Nature</i> , 2017 , 545, 345-349	50.4	172
63	knor 2017 ,		3
62	. <i>IEEE Transactions on Parallel and Distributed Systems</i> , 2017 , 28, 1470-1483	3.7	15
61	Science in the cloud (SIC): A use case in MRI connectomics. <i>GigaScience</i> , 2017 , 6, 1-10	7.6	19
60	Analysis of geometrical and statistical features of Lagrangian stretching in turbulent channel flow using a database task-parallel particle tracking algorithm. <i>Physical Review Fluids</i> , 2017 , 2,	2.8	10
59	Extreme Event Analysis in Next Generation Simulation Architectures. <i>Lecture Notes in Computer Science</i> , 2017 , 277-293	0.9	4
58	To the Cloud! A Grassroots Proposal to Accelerate Brain Science Discovery. <i>Neuron</i> , 2016 , 92, 622-627	13.9	34
57	A Web services accessible database of turbulent channel flow and its use for testing a new integral wall model for LES. <i>Journal of Turbulence</i> , 2016 , 17, 181-215	2.1	86
56	Saturated Reconstruction of a Volume of Neocortex. <i>Cell</i> , 2015 , 162, 648-61	56.2	607

55	The Johns Hopkins Turbulence Databases: An Open Simulation Laboratory for Turbulence Research. <i>Computing in Science and Engineering</i> , 2015 , 17, 10-17	1.5	16
54	A resource from 3D electron microscopy of hippocampal neuropil for user training and tool development. <i>Scientific Data</i> , 2015 , 2, 150046	8.2	23
53	Streaming Algorithms for Halo Finders 2015 ,		2
52	An automated images-to-graphs framework for high resolution connectomics. <i>Frontiers in Neuroinformatics</i> , 2015 , 9, 20	3.9	13
51	From cosmos to connectomes: the evolution of data-intensive science. <i>Neuron</i> , 2014 , 83, 1249-52	13.9	15
50	Synaptic molecular imaging in spared and deprived columns of mouse barrel cortex with array tomography. <i>Scientific Data</i> , 2014 , 1, 140046	8.2	9
49	MIGRAINE: MRI Graph Reliability Analysis and Inference for Connectomics 2013 ,		8
48	2013 ,		10
47	Toward Millions of File System IOPS on Low-Cost, Commodity Hardware 2013 ,		17
46	The life and death of unwanted bits: Towards proactive waste data management in digital ecosystems 2013 ,		1
45	The Open Connectome Project Data Cluster: Scalable Analysis and Vision for High-Throughput Neuroscience 2013 ,		29
44	Flux-freezing breakdown in high-conductivity magnetohydrodynamic turbulence. <i>Nature</i> , 2013 , 497, 466-9	50.4	112
43	Data-intensive spatial filtering in large numerical simulation datasets 2012 ,		4
42	Studying Lagrangian dynamics of turbulence using on-demand fluid particle tracking in a public turbulence database. <i>Journal of Turbulence</i> , 2012 , 13, N12	2.1	47
41	Scientific data management at the Johns Hopkins institute for data intensive engineering and science. <i>SIGMOD Record</i> , 2011 , 39, 18-23	1.1	2
40	Remote data checking using provable data possession. <i>ACM Transactions on Information and System Security</i> , 2011 , 14, 1-34		208
39	I/O streaming evaluation of batch queries for data-intensive computational turbulence 2011 ,		2
38	CoScan 2011 ,		23

37	An architecture for a data-intensive computer 2011 ,		5
36	MPI-DB, A Parallel Database Services Software Library for Scientific Computing. <i>Lecture Notes in Computer Science</i> , 2011 , 339-341	0.9	1
35	Security constructs for regulatory-compliant storage. <i>Communications of the ACM</i> , 2010 , 53, 126-130	2.5	2
34	JAWS: Job-Aware Workload Scheduling for the Exploration of Turbulence Simulations 2010 ,		9
33	Wireless sensor networks for soil science. <i>International Journal of Sensor Networks</i> , 2010 , 7, 53	0.8	23
32	Remote data checking for network coding-based distributed storage systems 2010 ,		86
31	FastAD. <i>Operating Systems Review (ACM)</i> , 2010 , 44, 45-49	0.8	4
30	Automated Design of Assemblable, Modular, Synthetic Chromosomes. <i>Lecture Notes in Computer Science</i> , 2010 , 280-289	0.9	2
29	Organization of Data in Non-convex Spatial Domains. <i>Lecture Notes in Computer Science</i> , 2010 , 342-359	0.9	
28	CA-NFS. <i>ACM Transactions on Storage</i> , 2009 , 5, 1-24	1	14
27	Adaptive Physical Design for Curated Archives. <i>Lecture Notes in Computer Science</i> , 2009 , 148-166	0.9	6
26	Parallel Poisson Surface Reconstruction. <i>Lecture Notes in Computer Science</i> , 2009 , 678-689	0.9	30
25	Robust remote data checking 2008 ,		47
24	Automated physical design in database caches 2008 ,		11
23	Network-Aware Join Processing in Global-Scale Database Federations 2008 ,		11
22	NFS-CD: Write-Enabled Cooperative Caching in NFS. <i>IEEE Transactions on Parallel and Distributed Systems</i> , 2008 , 19, 323-333	3.7	6
21	MR-PDP: Multiple-Replica Provable Data Possession 2008 ,		212
20	A public turbulence database cluster and applications to study Lagrangian evolution of velocity increments in turbulence. <i>Journal of Turbulence</i> , 2008 , 9, N31	2.1	243

19	Prototype System for Multidisciplinary Shared Cyberinfrastructure: Chesapeake Bay Environmental Observatory. <i>Journal of Hydrologic Engineering - ASCE</i> , 2008 , 13, 960-970	1.8	12
18	Organizing and indexing non-convex regions. <i>Proceedings of the VLDB Endowment</i> , 2008 , 1, 1500-1503	3.1	
17	Provable data possession at untrusted stores 2007 ,		880
16	Data exploration of turbulence simulations using a database cluster 2007 ,		74
15	A Workload-Driven Unit of Cache Replacement for Mid-Tier Database Caching 2007 , 374-385		9
14	Data management and query--Estimating query result sizes for proxy caching in scientific database federations 2006 ,		2
13	Estimating Query Result Sizes for Proxy Caching in Scientific Database Federations 2006 ,		2
12	Verifiable audit trails for a versioning file system 2005 ,		3
11	Tunable randomization for load management in shared-disk clusters. <i>ACM Transactions on Storage</i> , 2005 , 1, 108-131	1	2
10	Ext3cow: a time-shifting file system for regulatory compliance. <i>ACM Transactions on Storage</i> , 2005 , 1, 190-212	1	84
9	In-place reconstruction of version differences. <i>IEEE Transactions on Knowledge and Data Engineering</i> , 2003 , 15, 973-984	4.2	9
8	Handling Heterogeneity in Shared-Disk File Systems 2003 ,		7
7	Compactly encoding unstructured inputs with differential compression. <i>Journal of the ACM</i> , 2002 , 49, 318-367	2	45
6	Scalable Session Locking for a Distributed File System. <i>Cluster Computing</i> , 2001 , 4, 295-306	2.1	2
5	Efficient data distribution in a Web server farm. <i>IEEE Internet Computing</i> , 2001 , 5, 56-65	2.4	9
4	Authenticating network attached storage. <i>IEEE Micro</i> , 2000 , 20, 49-57	1.8	22
3	Consistency and locking for distributing updates to web servers using a file system. <i>Performance Evaluation Review</i> , 2000 , 28, 15-21	0.4	1
2	Workload-Aware Histograms for Remote Applications. <i>Lecture Notes in Computer Science</i> , 402-412	0.9	0

1 A High-Throughput Pipeline Identifies Robust Connectomes But Troublesome Variability

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