

Alexander S Szalay

List of Publications by Year in descending order

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56
papers

4,977
citations

471477

17
h-index

414395

32
g-index

56
all docs

56
docs citations

56
times ranked

5749
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance optimization in DNA short-read alignment. <i>Bioinformatics</i> , 2022, 38, 2081-2087.	4.1	5
2	Molecular phenotypes associated with antipsychotic drugs in the human caudate nucleus. <i>Molecular Psychiatry</i> , 2022, 27, 2061-2067.	7.9	10
3	Data-Rich Spatial Profiling of Cancer Tissue: Astronomy Informs Pathology. <i>Clinical Cancer Research</i> , 2022, 28, 3417-3424.	7.0	3
4	Characterizing the dynamic and functional DNA methylation landscape in the developing human cortex. <i>Epigenetics</i> , 2021, 16, 1-13.	2.7	19
5	Analysis of multispectral imaging with the AstroPath platform informs efficacy of PD-1 blockade. <i>Science</i> , 2021, 372, .	12.6	114
6	Genome-wide sequencing-based identification of methylation quantitative trait loci and their role in schizophrenia risk. <i>Nature Communications</i> , 2021, 12, 5251.	12.8	37
7	Digital Pathology Analysis Quantifies Spatial Heterogeneity of CD3, CD4, CD8, CD20, and FoxP3 Immune Markers in Triple-Negative Breast Cancer. <i>Frontiers in Physiology</i> , 2020, 11, 583333.	2.8	42
8	Arioc: High-concurrency short-read alignment on multiple GPUs. <i>PLoS Computational Biology</i> , 2020, 16, e1008383.	3.2	9
9	Arioc: High-concurrency short-read alignment on multiple GPUs. , 2020, 16, e1008383.		0
10	Arioc: High-concurrency short-read alignment on multiple GPUs. , 2020, 16, e1008383.		0
11	Arioc: High-concurrency short-read alignment on multiple GPUs. , 2020, 16, e1008383.		0
12	Arioc: High-concurrency short-read alignment on multiple GPUs. , 2020, 16, e1008383.		0
13	Arioc: High-concurrency short-read alignment on multiple GPUs. , 2020, 16, e1008383.		0
14	Arioc: High-concurrency short-read alignment on multiple GPUs. , 2020, 16, e1008383.		0
15	The Terabase Search Engine: a large-scale relational database of short-read sequences. <i>Bioinformatics</i> , 2019, 35, 665-670.	4.1	8
16	Arioc: GPU-accelerated alignment of short bisulfite-treated reads. <i>Bioinformatics</i> , 2018, 34, 2673-2675.	4.1	17
17	Density-dependent clustering “ I. Pullingback the curtains on motions of the BAO peak. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 478, 2495-2504.	4.4	13
18	Database-Centric Scientific Computing. <i>Lecture Notes in Computer Science</i> , 2018, , 3-19.	1.3	0

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19	Extreme Event Analysis in Next Generation Simulation Architectures. Lecture Notes in Computer Science, 2017, , 277-293.	1.3	6
20	A fast algorithm for neutrally-buoyant Lagrangian particles in numerical ocean modeling. , 2016, , .		5
21	DOT-K: A distributed online top-K elements algorithm using extreme value statistics. , 2016, , .		0
22	The WFIRST Science Archive and Analysis Center. Proceedings of the International Astronomical Union, 2016, 12, 373-378.	0.0	0
23	Arioc: high-throughput read alignment with GPU-accelerated exploration of the seed-and-extend search space. PeerJ, 2015, 3, e808.	2.0	33
24	Real time change point detection by incremental PCA in large scale sensor data. , 2014, , .		1
25	Dark matter contribution to Galactic diffuse gamma ray emission. Physical Review D, 2014, 89, .	4.7	3
26	The future of computerized decision making. , 2014, , .		10
27	From Cosmos to Connectomes: The Evolution of Data-Intensive Science. Neuron, 2014, 83, 1249-1252.	8.1	20
28	From simulations to interactive numerical laboratories. , 2014, , .		1
29	Toward millions of file system IOPS on low-cost, commodity hardware. , 2013, , .		24
30	Flux-freezing breakdown in high-conductivity magnetohydrodynamic turbulence. Nature, 2013, 497, 466-469.	27.8	143
31	Studying Lagrangian dynamics of turbulence using on-demand fluid particle tracking in a public turbulence database. Journal of Turbulence, 2012, 13, N12.	1.4	56
32	Incremental and Parallel Analytics on Astrophysical Data Streams. , 2012, , .		1
33	Just-in-Time Analytics on Large File Systems. IEEE Transactions on Computers, 2012, 61, 1651-1664.	3.4	8
34	Data-intensive spatial filtering in large numerical simulation datasets. , 2012, , .		4
35	Array requirements for scientific applications and an implementation for microsoft SQL server. , 2011, , .		12
36	THE EIGHTH DATA RELEASE OF THE SLOAN DIGITAL SKY SURVEY: FIRST DATA FROM SDSS-III. Astrophysical Journal, Supplement Series, 2011, 193, 29.	7.7	1,166

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37	Implementing a General Spatial Indexing Library for Relational Databases of Large Numerical Simulations. Lecture Notes in Computer Science, 2011, , 509-526.	1.3	7
38	Galaxy Zoo: passive red spirals. Monthly Notices of the Royal Astronomical Society, 2010, , .	4.4	125
39	Searchable Sky Coverage of Astronomical Observations: Footprints and Exposures. Publications of the Astronomical Society of the Pacific, 2010, 122, 1375-1388.	3.1	24
40	JAWS: Job-Aware Workload Scheduling for the Exploration of Turbulence Simulations. , 2010, , .		9
41	A public turbulence database cluster and applications to study Lagrangian evolution of velocity increments in turbulence. Journal of Turbulence, 2008, 9, N31.	1.4	373
42	The Sixth Data Release of the Sloan Digital Sky Survey. Astrophysical Journal, Supplement Series, 2008, 175, 297-313.	7.7	1,202
43	Future directions of the Virtual Observatory. Proceedings of the International Astronomical Union, 2006, 2, 617-617.	0.0	0
44	Science in an exponential world. Nature, 2006, 440, 413-414.	27.8	181
45	ASTROPHYSICS WITH TERABYTES OF DATA. , 2006, , .		0
46	Cosmological Parameters from Eigenmode Analysis of Sloan Digital Sky Survey Galaxy Redshifts. Symposium - International Astronomical Union, 2005, 216, 129-139.	0.1	0
47	Fourier Phase Analysis of SDSS Galaxies. Publication of the Astronomical Society of Japan, 2005, 57, 709-718.	2.5	25
48	Cosmological Parameters from Eigenmode Analysis of Sloan Digital Sky Survey Galaxy Redshifts. AIP Conference Proceedings, 2004, , .	0.4	2
49	Three-Point Correlation Functions of SDSS Galaxies in Redshift Space: Morphology, Color, and Luminosity Dependence. Publication of the Astronomical Society of Japan, 2004, 56, 415-423.	2.5	66
50	Karhunen&Looe Estimation of the Power Spectrum Parameters from the Angular Distribution of Galaxies in Early Sloan Digital Sky Survey Data. Astrophysical Journal, 2003, 591, 1-11.	4.5	65
51	Designing and mining multi-terabyte astronomy archives. SIGMOD Record, 2000, 29, 451-462.	1.2	78
52	Measuring large&scale structure from redshift surveys. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1999, 357, 117-132.	3.4	1
53	A Modified Magnitude System that Produces Well-Behaved Magnitudes, Colors, and Errors Even for Low Signal-to-Noise Ratio Measurements. Astronomical Journal, 1999, 118, 1406-1410.	4.7	388
54	Soundwaves in the Universe. Acta Physica Hungarica A Heavy Ion Physics, 1997, 5, 271-280.	0.4	0

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55	Constraints on the Biasing of Density Fluctuations. Symposium - International Astronomical Union, 1988, 130, 163-167.	0.1	0
56	Measuring the Baryon Acoustic Oscillation scale using the Sloan Digital Sky Survey and 2dF Galaxy Redshift Survey. Monthly Notices of the Royal Astronomical Society, 0, 381, 1053-1066.	4.4	661